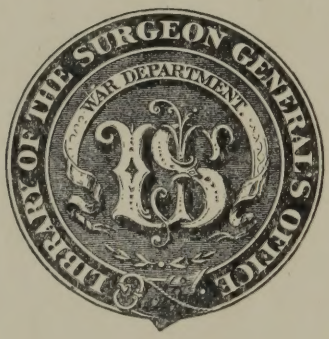
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W. Beach M.D.

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THE

AMERICAN PRACTICE

CONDENSED.

OR THE

FAMILY PHYSICIAN:

BEING THE

SCIENTIFIC SYSTEM OF MEDICINE;

ON VEGETABLE PRINCIPLES, DESIGNED FOR ALL CLASSES.

IN NINE PARTS.

PART I.—THE MEANS OF PREVENTING DISEASE AND PROMOTING HEALTH. PART II.—GENERAL PRINCIPLES OF THE REFORMED PRACTICE OF MEDICINE AND INDICATIONS OF CURE. PART III.—INTERNAL DISEASES. PART IV.—SURGICAL DISEASES. PART V.—MIDWIFERY. PART VI.—VEGETABLE MATERIA MEDICA. PART VII.—PHARMACY AND DISPENSATORY, OR COMPOUNDS. PART VIII.—DIET FOR THE HEALTHY AND THE SICK. PART IX.—OUTLINES OF ANATOMY AND PHYSIOLOGY, WITH ILLUSTRATIONS. APPENDIX.

THIS WORK EMBRACES THE

CHARACTER, CAUSES, SYMPTOMS, AND TREATMENT

OF THE

DISEASES OF MEN, WOMEN, AND CHILDREN,

OF ALL CLIMATES.

BY W. BEACH, M. D.,

Member of the Medical Society of the city and county of New York; Author of the "American Practice of Medicine" in three volumes; Corresponding Member of the Royal College of Physicians and Surgeons of Berlin, Prussia; of the Medical and Physiological Society of Wetterau, Germany; of Leipsic, Saxony; of the Medical Society of Bamberg, Bavaria; of the Natural Society of Friesburg, Dukedom of Baden, &c.

These doctrines have guided my practice many years, and experience has taught me not to distrust their *truth, safety* and *value*.

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STEREOTYPED BY VINCENT L. DILL,
No. 128 Fulton Street, New-York.

"GOLDEN OPINIONS."

I was a dogmatic at twenty, an observer at thirty, an empiric at forty, and now, at fifty, I no longer hav any system.—*S. Borden.*

The art of medicine is founded on experience.—*Edinburgh Medical and Surgical Journal.*

How egregiously do the greatest men err whenever they lose sight of facts, or substitute sallies of wit r specious arguments in physic, for observation and experience.—*Buchan.*

If an opinion be *erroneous*, it requires discussion, that its errors may be exposed. If it be *true*, it will gain adherents in proportion as it is examined.—*Dr. Cooper.*

Let truth and falsehood grapple. Who ever knew truth put to the worse in a free and open encoun er?—*Milton.*

If employment of the lancet were abolished altogether, it would, perhaps, save annually a grea er num ber of lives than in any one year the sword has ever destroyed.—*Dr. Ring.*

The man who wantonly wields the bloody knife for the sake of experience or a vain display of his adroitness, is a human savage, in whose breast soft pity never dwelt.—*Dr. Cumming.*

Abominable is the murdering quack, who, for ever impatient to unsheath his blood-thirsty lancet, draws from a fever patient the irreparable balsam of life.—*Dr. Hunn.*

I am neither for the ancients nor for the moderns, but shall be of every age and nation.—*Baglivi.*

Let us study the character of diseases, and let us study the effects of the loss of blood.—*Hall.*

It sometimes requires no little boldness to abstain from the loss of blood.—*Ibid.*

We have not in any instance yielded our assent to authority, however high, when it has been contradicted by our own experience.—*Dewees.*

It is owing to our ignorance that there is any necessity for instruments to cure disease.—*Abernethy.*

If the Reformed System be a good one, let it flourish and progress. If it be a bad one, let it be frowned down by the just censure of an enlightened community.—*Banner.*

Both surgery and medicine can and will, in the present astonishing strides of human intellect, be forced to pass a rigid scrutiny, and undergo a radical improvement.—*Smead.*

"Minerals exert a pernicious and baneful influence on the system; they seldom or never cure, but often destroy the patient. Their operation is altogether uncertain, depending entirely on the state of the stomach whether they act at all, or prove injurious."

Among the numerous poisons which have been used for the cure or alleviation of diseases, there are few which possess more active, and, of course, more dangerous, powers than mercury.—*Hamilton.*

"Mercury, the lancet, and the knife are now almost the only means made use of to cure disease, notwithstanding their deleterious effects are evidently fatal to multitudes."

The popular belief, that every country produces simples suitable to cure all the prevailing local diseases, s not void of truth; vegetable substances afford the mildest, most efficient, and most congenial remedies to the human frame. The numerous cures that are daily performed by the use of vegetable medicines, are sufficient evidence of their super-excellent virtues.—*Prof. Rafinesque.*

The Flora of North America is astonishingly rich in remedies. There is no doubt in my mind that, in more diseases than is generally acknowledged, vegetable simples are the preferable remedies. Who knows but in time these native productions of the field and forest will so enlarge and confirm their dominion, as to supersede the employment of other medicines.—*Prof. Waterhouse.*

To yield to any authority would here be criminal. Facts must and will stand.—*Dr. Underwood.*

It would be highly advantageous to the public, and likewise to the best part of the medical profession, if the predispositions and occasions of disease were made a portion of the education of every gentleman.—*Dr. Armstrong.*

Every physician must rest on his own judgment, which appeals for its rectitude to nature and experience alone.—*Gregory.*

An obstinate adherence to an unsuccessful method of treating a disease is self-conceit; it generally proceeds from ignorance; it is a species of pride to which the lives of thousands have been sacrificed.—*Ibid.*

I am here insensibly led to make an apology for the instability of the theories and practice of physic And those physicians generally become the most eminent who have the soonest emancipated themselves from the tyranny of the schools of physic.—*Late Author.*

Our want of success is occasioned by the following causes: 1st, our ignorance of the disease; 2d, our ignorance of a suitable remedy; 3d, want of efficacy in the remedy.—*Ibid.*

If truth does anywhere manifest itself, seek not to smother it with glossing delusion; acknowledge the greatness thereof, and esteem it thy best victory when the same doth prevail over thee.—*Hooker.*

The whole nation is groaning under the present practice of the medical profession, which fosters disease more than cures it, and debases or ruins our constitutions.—*Morison.*

Physicians have been tinkering the constitution for about two thousand years, to cure diseases; and the result of all their discoveries is, that brimstone and mercury are the only two specifics. Diseases remain what they ever were.—*Lacon.*

All men ought to be acquainted with the medical art. I believe that knowledge of medicine is the sister and companion of wisdom.—*Hippocrates.*

In early times skill in healing was esteemed a part of wisdom. I believe the practice of medicine should be agreeable to reason.—*Celsus.*

As health is the most precious of all things, and is the foundation of all happiness, the science of protecting life and health is the noblest of all, and most worthy the attention of all mankind.—*Hoffman.*

"Not only a reformation in medicine is necessary, but a revolution."

"Oh, that men would stoop to learn, or at least cease to destroy."—*Stokes's Practice*

Dr. McNair, of Philadelphia, a physician of the old school, makes the following candid confession: "I have employed," says he, "the treatment recommended in the books, and used indiscriminately by medical men during the last forty years, and found them altogether useless, not only in my hands, but also in the hands of others, some of whom stand at the head of the science."—*Medical Suggestions*, p. 168.

The whole *art of healing* may be comprised in three adverbs or words, viz.: WHAT? HOW? and WHEN? in other language, *what* agent to prescribe? *how* and *when* to administer it?

NOTICE BY THE PUBLISHER.

Since the last edition (the ninth) was issued, this work has been thoroughly revised, many typographical errors have been corrected; the sense has been made more clear where it was somewhat obscure, and various other defects have been removed by a complete revision of the entire work. The Book has also been greatly improved by substituting for certain preparations or prescriptions, heretofore recommended, others, which the enlarged experience of the Author has proved to be of superior value. These corrections and improvements have been made under the immediate supervision, and by the suggestion of the Author, Dr. Beach,—all which have greatly added to the value of the Work.

JAMES McALISTER,

Sole Proprietor of the Copy-right, and Publisher of Dr. Beach's "American Practice, an Family Physician."

141 *Fulton st. New York, June*, 1847.

INTRODUCTION.

In laying this volume before the public, I deem it necessary to offer some preliminary remarks.

My large work, the AMERICAN PRACTICE OF MEDICINE, being so nearly exhausted, I have found it necessary to issue another edition; and, in order to place it within the reach of all classes, I have concluded to publish it in the form of a compendium, which, I trust, is better calculated to diffuse the principles of the practice. It contains all the practical part of the large work, besides various additions, and my latest improvements and experience in the treatment of diseases; and I hope it will not disappoint the expectations of the friends of *reform*.

It appears to me there never was a period in which a correct system of medical and surgical practice was more imperiously demanded, than the present; for the science of medicine is, at present, a perfect chaos. There are so many theories, so many modes of treating disease, such discordant sentiments entertained, both by physicians and the community at large, on the subject of medicine, that duty requires every exertion to be made to rescue the healing art from the intricacy and maze in which it has unfortunately become involved, and to exhibit it in its own native beauty and simplicity. The farther accomplishment of this object is the design of the present undertaking. My primary object, in my labours in the field of MEDICAL REFORM, is now, and has ever been, to clear away the rubbish of former, as well as of present, medical theories; and amid their wreck to collect whatever materials might be found, from all proper sources, for the construction of a new edifice, resting on a broader and more durable foundation.

To insure success in this undertaking, the first step is, to enlighten the public mind on this interesting and important topic; for, as long as *blindness*, *ignorance*, and *prejudice* exist, no reform can be effected: they are like the noxious exhalations of the deadly upas, infusing poison through the whole circle of their influence.

The present period may be emphatically denominated an age of investigation and improvement; and, when truth is plainly presented to the honest mind, it seldom fails of receiving a cordial welcome. In the arts and sciences in general, greater researches and discoveries have been made than at any former period. In respect to steamboats, railroads, education, and various other matters, the human mind has achieved wonders, and given ample proof of its divine origin. Unfortunately, however, for suffering humanity, the healing art, among those who are regarded as the most learned and skillful, has, instead of advancing, greatly retrograded, and now constitutes a most lamentable contrast to the progress made in other departments. But when we turn our eyes to the *reformed medical school*, we are greeted with the most cheering prospects. Here, comparatively, in a short space of time, principles have been developed, and improvements made, which have kept pace with those in other branches of art and science. The old building, with its rubbish, has been torn down and cleared away, and an edifice erected, which, if not finished, is rapidly progressing, and requires but a few more efforts to complete it. We may, therefore, say with the great political reformer, THOMAS JEFFERSON—"We are in the full tide of successful experiment."

For the benefit of those who still remain ignorant of the present state of medicine and surgery, I will very briefly advert to its history from its commencement to the present day; and,

FIRST—THE ANCIENT PRACTICE OF MEDICINE.

We may divide ancient practitioners into three principal classes: the EMPIRIC, the GALENIC or BOTANIC, and the CHEMICAL.

First—THE EMPIRIC.

By adverting to the history of the primitive ages of the world, we find that medicine and astronomy were the first sciences attempted to be cultivated by man. Medicine appears to have been at first "little else than a collection of absurd superstitions." "The human mind, influenced by superstition and untaught by experience," associated the idea of religion with medicine; and, consequently, resort was had "to charms and incantations," in full confidence of preventing and curing every malady. Hence, during the early part of the history of our species, "ignorant priests, magicians, and astrologers were their only physicians." Fatal experience, however, soon taught the sufferers that "a cure of their maladies was to be effected by more potent remedies than those of sorcery and enchantment. In process of time, therefore, an expedient, suited to their circumstances, was put in practice for the attainment of medical knowledge. The sick were directed to be exposed in public places to the view of travellers and strangers, who were required to examine and compare their cases with such as might antecedently have fallen under their observation, and to recommend such remedies as had been known to produce beneficial effects in similar complaints. And, when discoveries were thus made, the precious remedies were held in veneration, and the knowledge of them was conveyed by oral tradition, or recorded upon pillars in the most public places, or on the walls of the temples dedicated to the god of health; and afterward registers of cures were kept in those consecrated places, for the general good of mankind," Æsculapius is the first person on record who collected together all the known remedies then in use: he founded a temple, in which they were suspended for the use of the diseased. It is said that he particularized the virtues of each plant, and placed a label under them for the use of such as sought relief at the temple, which was resorted to from great distances. This was the commencement of the healing art in a systematic form.

Second—THE GALENIC.

In the first year of the eighteenth Olympiad, Hippocrates was born, who effected a wonderful revolution in the practice of medicine, and reduced it to a science: his authority continued to be regarded more than two thousand years with implicit veneration. He was a man of pre-eminent genius, and the earliest medical theorist of any merit whose name has been transmitted to posterity. As a physician, he seems to have been more of a speculative observer, than strictly practical. A distinguished seat of medical learning, many years after the death of Hippocrates, was established at Alexandria, in which a schism arose, dividing the medical world into two rival sects, called dogmatists and empirics. The former advocated theory, the latter experience, in the treatment of diseases.

In the year 131 of the Christian era, Galen, a remarkable genius, was born in Asia Minor. He was instructed in all the learning and philosophy of the age, and obtained a popularity which surpassed that of all others: he deviated from the beaten path, rejected the popular systems, and selected what he deemed best from other sects. So great was the persecution raised against him by the popular physicians, that he left Rome: he was, however, soon recalled by the emperor, who had so high an opinion of his medical skill, that he placed two of his sick sons under his charge, in whose cases Galen, contrary to the opinion of the other physicians, predicted a favourable result, which prediction was fulfilled. This rendered him so eminent, that opposition was thenceforward unavailing. For fourteen centuries his system remained in the ascendant. His practice was the vegetable, though he resorted to depletion or blood-letting.

Third—THE CHEMICAL.

In the year 1493, in Switzerland, arose THEOPHRASTUS BOMBASTUS PARACELSUS, the great prototype of all succeeding quacks. It was he who first introduced quicksilver or mercury as a medicine; and all who thus administered it were denominated "quacks," in allusion to the name quacksalver, given to this metal by the Germans. This individual succeeded in overthrowing the Galenic system, which had stood the test of fourteen hundred years; and in its place he introduced the mineral or chemical

system He burnt the works of Galen before the audience to whom he lectured He at length became intolerably vain-glorious, boasting that there was more knowledge in his beard than in the whole of Galen. He was likewise shockingly impious, declaring that, if God would not impart to man the secrets of medicine, it was right to consult the devil. He professed to have discovered the elixir of life, which would prolong our moral existence to any extent. He died a miserable vagabond, at the age of forty-eight.

Such, then, was the personage to whom we are indebted for the introduction of the mineral practice, which has continued to the present day, entailing misery on the human family to an amount beyond all computation.

The introduction of mineral agents into medical practice caused great excitement. The regular physicians of that day, the Galenic or Botanic, (now irregular,) contended with much zeal against minerals; while, on the other hand, the chemical practitioners, or quacks, inveighed against Botanics, as being weak and inefficient. The whole medical world was thus kept in commotion for 200 years. Both sides assailed each other with the most opprobrious epithets; and the contest has continued to the present day.

"Since the days of Paracelsus the great mass of physicians have placed their chief reliance upon the lancet, the knife, and a few acrid and poisonous minerals, appearing, in the selection of their remedies, as if totally regardless of secondary consequences, and aiming only at present effects; thus seeming to leave entirely out of consideration the future health and condition of their patients. This circumstance has tended powerfully to retard the progress of medical science; and herein we believe that *medical reform* is particularly called for."

We may sum up the whole history of medicine, from the earliest to the present period, in the language of that great and good man, John Wesley.

Extract from the writings of John Wesley.

The healing art was first brought into use in a very natural and simple manner. In the earliest age of the world mankind, by various experiments or accidents, discovered that certain plants, roots, and barks possessed medicinal properties. These were found sufficient to remove their diseases. The application of these remedies was plain and easy; but in process of time many began to make a profession of medicine, and to strip it of its simplicity; they began to inquire into the operation of such remedies, why and how they performed such cures; they examined the human frame, and all its parts; the nature of the flesh, arteries, nerves; the structure of the brain, heart, lungs, stomach, bowels, &c., with the springs of the several animal functions. They explored the several kinds of animal and mineral, as well as vegetable, substances. And hence the whole order of physic was subverted, and founded upon hypothesis; they formed theories of diseases and their cures, and substituted these in place of experiments.

As theories increased, simple medicines were more and more disregarded and disused; till in a course of years the greater part of them were forgotten, at least in the more polite nations. In the room of these, abundance of new ones were introduced, by reasoning, speculative men; and those more and more difficult to be applied, as being more remote from common observation. Hence rules for the application of these, and medical books, were immensely multiplied: till at length physic became an abstruse science, quite out of the reach of ordinary men. Physicians now began to be held in admiration, as persons who were something more than human: and profit attended their employ, as well as honour; so that they had now two weighty reasons for keeping the bulk of mankind at a distance, that they might not pry into the mysteries of their profession. To this end they increased those difficulties by design, which were first, in a manner, by accident. They filled their writings with abundance of technical terms, utterly unintelligible to plain men. They affected to deliver their rules, and to reason upon them, in an abstruse and philosophical manner. They represented the critical knowledge of anatomy, natural philosophy, and what not, (some of them insisting on that of astronomy, and astrology too,) as necessary previous to the understanding of the art of healing. Those who understood only how to restore the sick to health, they branded with the name of Empirics. They introduced into practice abundance of compound medicines, consisting of so many ingredients that it was scarce

possible for common people to know which it was that wrought a cure: abundance of exotics, neither the nature nor names of which their own countrymen understood, of chemicals, such as they neither had skill, nor fortune, nor time to prepare; yea, and of dangerous ones, such as they could not use without hazarding life, but by the advice of a physician. And thus both their honour and gain were secured, a vast majority of mankind being utterly cut off from helping either themselves or their neighbours, or once daring to attempt it. Yet there has not been wanting, from time to time, some lovers of mankind, who have endeavoured (even contrary to their own interest) to reduce physic to its ancient standard; who have laboured to explode out of it all hypothesis and fine-spun theories, and to make it a plain, intelligible thing, as it was in the beginning, having no more mystery in it than this—"such a medicine removes such a pain." These have demonstrably shown that neither the knowledge of astrology, astronomy, natural philosophy, nor even anatomy itself, is absolutely necessary to the quick and effectual cure of most diseases incident to the human body: nor yet any chemical, or exotic, or compound medicine; but a simple plant or root duly applied, so that every man of common sense (in ordinary cases) may prescribe for himself or his neighbour; and may be very secure from doing harm, even where he can do no good.

Having given a short history of ancient medicine, I now come to treat of

SECOND—THE MODERN PRACTICE.

Under this head may be enumerated five classes: 1st, the common or MINERAL PRACTITIONERS; 2d, the THOMSONIAN; 3d, the HOMŒPATHIC; 4th, the NOSTRUM-MONGER, or SECRET; 5th, the REFORMED or BOTANIC.

1st. THE MINERAL AND DEPLETIVE CLASS.—These constitute the "Faculty;" have chartered medical colleges; are deemed the most learned; and, in some respects, are the most popular. Their principal means for healing the sick are these deadly weapons—MERCURY, the LANCET, and the KNIFE. Their treatment, instead of assisting nature, only retards her efforts and aggravates disease. Happily for suffering humanity, their practice is so manifestly injurious, that it is now gradually on the wane, and must in a few years sink into oblivion. God, in his infinite goodness, has given to suffering man a practice far superior, and shown us that there is yet *Balm* in *Gilead*.

Says the author of the "Key to Medical Science:" "We will yet add a few remarks in regard to mineral and vegetable agents in the treatment of disease. We are aware that those who use vegetable remedies alone, and contend earnestly for their exclusive use, are looked upon, by the great portion of the community, with an eye of indifference at least; but often are they singled out as men destitute of the knowledge of anatomy, possessed but of a small share of education, and but little knowledge of the science of medicine. This can only be attributed to a want of knowledge, or to a prejudice, having its origin in the influence which interested individuals have been enabled to exert over their credulity. The only test must be a trial of their relative qualifications. That point is now at issue, and is rapidly approaching its conclusion. How it must terminate, needs no particular foresight to perceive. The thousands and tens of thousands, in all sections of the United States, who have within a few years, and those who are now daily abandoning the use of mineral agents for the treatment of disease, speak a language which cannot be misunderstood. The ultimate issue is no longer involved in doubt; a change, a thorough change, will soon take place in medicine. Physicians will have to start their studies from a new point, practice upon different principles, and adopt very different remedies from what they are now using. A few years from this time, and the mineral and depletive practice will be held in contempt by every well-informed mind. The people themselves will take this great and important cause in hand: they begin to perceive that the health and well-being of both themselves and families demand it; posterity demands it; and they will not suffer the important obligation under which they feel themselves placed, to pass by unheeded. Already they have it in agitation to establish societies among themselves for the furtherance and support of the Botanical cause, and for the suppression of the mineral practice. We bid them good speed, and shall not hesitate to throw all the force and energy of which we have control into the scale. It is a good work,—a worthy undertaking, and one calculated to immortalize its projectors."

2d THE THOMSONIAN CLASS.—There are two parties belonging to this class; the

"*pure*" Thomsonians, and the "Independents," the latter calling themselves the Botanic. The *pure* Thomsonians are rigid followers of Samuel Thomson, an illiterate, conceited, arbitrary, and selfish individual, who obtained a patent for curing all diseases by the use of "some articles comprised in six numbers." The principal treatment consists in administering lobelia emetics, steaming, and injections; all good, if properly used. His theory is, that heat is life, and cold is death; and hence the more heat, the more life; and also that this heat, instead of being formed in the lungs, is generated in the stomach. Both the theory and the practice are erroneous. Thomson says, in his book, "bile is discharged into the stomach to digest the food;" whereas it discharges into the intestines, several inches below the stomach, and is designed to quicken the action of the bowels, &c. Patients afflicted with diverse and opposite diseases; men, women, and children, in all stages of their complaints; are subjected to certain courses of medicine, vomiting, injections, steaming, and having cold water dashed upon them while in a state of copious perspiration. Purgatives are rejected as pernicious, and pukes given for almost every complaint.

Such a plan may cure one man, but may kill others; and such has actually been the fact. I ask any person of common sense, if such treatment is not empirical and preposterous: and yet it is cried up by blind devotees as the best system that ever was or ever will be.

A young man by the name of Mattson, a "pure Thomsonian," appointed by Thomson himself to revise his work, and who has appropriated to himself the title of my large work, with an additional word, has the following remarks on purgatives:

"For my own part," says Mattson, "I consider blood-letting less pernicious, as a means of depletion, than catharties." Again; "With the exception of calomel and the lancet, there are no agents employed by medical men which do more injury to the human system than purgatives." A great contrast this between the doctrine of Thomson and Dr. Brandreth. The former rejects purgatives altogether, and pronounces them pernicious, while the latter recommends them for every disease. This is a very bad feature in the practice. Nearly the whole length of the intestines, about *thirty feet in length*, are filled and obstructed with morbid accumulations, to the great hazard of the patient. A Thomsonian doctor in this city informed me the other day that he treated a case of bilious colic, in which he had given vomits and injections without relief; the patient, laying his hand below the stomach, often repeating, "you have not reached the disease yet." Finally he concluded to administer a purgative, when immediately the obstruction was removed, and he was cured. Besides, in every disease *Cayenne pepper* is given, which is liable to injure the patient by imparting too much heat or stimulus. Is this imitating nature, to *vomit*, *steam*, *pepperize*, and *injectionize* for every disease? These men have yet to learn the difference between *assisting* and *forcing* nature, as well as other correct principles. With them it is lobelia, steam, and pepper, by the mouth and by the bowels. Our system has suffered much injury by being identified with the Thomsonian or Steam System.*

Every article to which he lays claim was originally known and used a long time before by the Indians and others; lobelia, pepper, steaming, &c. As a specimen of Thomson's skill, I here give Mattson's statement of a case, who was, he states, "two years under the same roof, among the numerous patients." Mr. W. A. Parker, a highly respectable citizen, was afflicted with an ulcer on his breast, which had baffled the skill of the faculty. Dr. Thomson administered *several courses of medicine;* and, pre-

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* *From the Western Medical Reformer of* 1836.

The editor, after having given the rise and progress of the Reformed System, similar to that of Dr. Porter, thus remarks: "There are now, in different sections of the United States, about *two hundred* regularly educated scientific Medical Reformers, who have gone forth from the New York and Worthington schools, besides a considerable number of old school physicians, who have come out and openly declared themselves decidedly in favour of the improved or botanical system of medical and surgical practice, so far as they have been able to become acquainted with its principles.

We have thought proper to give this brief sketch of the origin and progress of scientific Medical Reform, for the purpose of doing away certain erroneous impressions that exist in different parts of the country respecting our system, viz.: that it is identical, or intimately connected with, or fundamentally depending upon, the Thomsonian or Steam System.

It will readily be inferred from the preceding statements, that our system originated even before Thomson was known; and that, during its progress, it was gradually improved and developed, without the least reference to his system, and for the most part without even the knowledge that such a system as the Thomsonian, or such a being as Samuel Thomson, was in existence."

vious to each course, applied a poultice, two articles of which were *lobelia* and *Cayenne pepper*. This painful and highly injudicious application was intended, according to Dr. Thomson's own explanation, to drive the ulcer into the internal organs, so that, when vomiting ensued, it might be banished from the system! Notwithstanding the Cayenne and lobelia poultices, however, the ulcer still continued, until he applied to an old woman, who used injections, &c., which soon effected a cure.

Unfortunately for the healing art, men with little or no experience adopt a theory, and make everything bend to support it; whereas facts and experience alone should form the basis, and then the theory will of course be right.

Independent Thomsonians.—The other party is INDEPENDENT THOMSONIANS, though they should be designated by a more appropriate, respectable, and significant name. These had commenced with the Thomsonian practice, and, after testing it, were obliged to adopt other principles and remedies; and have thus declared themselves independent, which has created great commotion in their ranks. This class now constitute nearly the whole number of those called Thomsonians: scarcely one can be found who strictly adheres to Thomson's twenty dollar patent book; they having been compelled, by stern necessity, to abandon their sinking ship, and adopt a more rational and scientific practice. This reflects great credit on them, and may be considered an auspicious event in the history of medical reform: by keeping their minds open to conviction, and making farther improvements, they will become eminent, and more fully identified with the great body of scientific medical reformers: and these remarks are applicable to many other classes. When this takes place, and the various conflicting parties unite, they will march in a solid phalanx against the common enemy; and then will their banners of victory wave triumphant, and their shouts of exultation rend the skies. It cannot be expected that we shall all get right without stumbling more or less: but honesty will lead the mind to embrace the true and heavenly art of healing the sick. Great forbearance and a free interchange of sentiments are, therefore, necessary to the prosperity of the cause.

3d. HOMŒPATHIC PHYSICIANS.—The next class demanding our attention is, the HOMŒPATHIC, who, being unable to succeed with the old mineral practice, have turned their attention to that novel method of treatment. The founder was by birth a Saxon or German. Their theory is, that whatever will *create* a disease in health, will *cure* it when it arises spontaneously: for instance, salt will *cause* fever, and, therefore, it will *cure* it. Their medicines are numerous; but one kind only is administered at a time. They use, among others, *mercury, arsenic, antimony, &c.*, but in very minute doses, as the *millionth* or *billionth* part of a grain, which, if they possess any curative properties, may prove deleterious, by penetrating into every part of the body, and there remaining. In a work by Samuel Hahneman, termed Organon, page 207, the following directions are given for administering the medicines:

"The best mode of administering is, to make use of small globules of sugar the size of a mustard seed. One of these globules having imbibed the medicine, and being introduced into the vehicle, forms a dose containing about the three-hundredth part of a drop—for three hundred of such globules will imbibe one drop of alcohol; by placing one of these on the tongue, and not drinking anything after it, the dose is considerably diminished. But if the patient is very sensitive, and it is necessary to employ the smallest dose possible, and attain at the same time the most speedy results, it will be sufficient to let the patient smell one."

From the good opinion expressed of the practice by my friend Dr. Ward, I was induced to purchase some of their medicine and books, to test the merits of the system, which I have done to a limited extent. From this, and observations of its effects on others under the treatment of several homœpathics, I have to state that I have very little confidence in its curative properties. It may answer as a kind of *placebo* to the mind where no medicine is required, or to amuse the patient while nature effects the cure; but in acute diseases valuable time would be lost under it, which ought to be employed in administering efficacious remedies. The reputed cures of homœpathy depend upon the conservative powers of the system; but still, it is better than the old practice, being necessarily harmless: besides, the diet and regimen may prove very beneficial. A valuable lesson may also be learned by other practitioners, viz. · 1st, to give medicine as concentrated as possible; 2d, to give it as simple and seldom as possible; 3d, not to impair the integrity of the constitution by too much or too violent means; 4th, to rely much upon diet,

less on medicine, and more on the efforts of nature, in the treatment of disease. For these reasons the homœopathic physicians must be ranked among the natural curers, or *do-nothing curers*.

Since writing the above, I have been called to a distinguished dentist of this city, Dr. Burdell, who was taken unwell, and called a homœopathic physician to attend him. He requested him to give him no mercury; but, contrary to his express desire, he gave both *mercury* and *arsenic*; and he now states that he has been injured, particularly by the latter. He thinks that the absorbents have taken up the poison, and that it has settled in all his joints. They are now *swollen, stiff,* and *contracted;* and he is unable to walk. So indignant does he feel against the practice, that he proposes to caricature it, by exhibiting two rats, one in a healthy state, and the other after having passed through the ordeal of taking *ratsbane* or *arsenic*, with the hair off!

4th. NOSTRUM-MONGERS.—Another class of persons, who deal *in* and deal *out* medicine, and such as contrive, without skill or science, to make money by imposing upon the ignorant and credulous. These preparations are ostensibly for the cure of all diseases "that flesh is heir to," and are puffed into notice by certificates, true or false. The public have been, and still are, greatly duped and imposed upon by these quacks and impostors. It would appear that the community love to be humbugged; and they are more to be blamed than the nostrum-mongers themselves: by advertising the most worthless compounds sufficiently, they can be brought into notice, and extensively sold. Well might a writer exclaim, in reference to the credulity of mankind, "*The public is a goose, and he is a fool that will not pick her.*" It is often the case that persons will believe a *lie* much sooner than the *truth;* hence the prevalence of error.

From these conflicting opinions, an author uses the following language: "Facts evince the defects of physicians in the knowledge of the nature and cure of diseases, in all preceding ages, by the testimonies of their own writings; whereby the whole science has been overwhelmed with floods of errors and erroneous systems, from the time of Hippocrates down to the present age of learning and erudition; the whole art of medicine has been distracted by disputations and revolutions of its theories; and it continues still to fluctuate on the ocean of visions and uncertainties, and theoretical hypothesis, of its cultivators, who have either wished to exalt their names by the introduction of new systems and doctrines, or have laboured hard to acquire riches by some egregious impositions on mankind; and very few have desired to advance the science and art of medicine, in order to confer the most gratuitous and lasting benefits on their fellow-creatures."

5th. REFORMED OR BOTANIC PHYSICIANS.—This class advocate SCIENTIFIC MEDICAL REFORM, and combine everything useful of every other system. Their practice is tested by experience at the bed-side of the sick, and their theory is deduced from facts and correct principles of physiology. They recommend a general knowledge of anatomy and physiology; reject the use of *mercury*, the *lancet*, and almost exclusively the *knife;* administer vegetable agents, and such as are in union with the laws of nature. They maintain that all the physician can do, is, to act as a servant or handmaid to nature, aiding her in overcoming obstructions in various parts of the animal economy. This system is denominated the REFORMED OR AMERICAN PRACTICE; it has taken deep root, and is extending its branches and bearing fruit, and its adherents may be found throughout the United States. It is continually increasing, and bids fair to triumph over every other erroneous treatment. I have advocated this practice from youth to the present period, and it is still farther illustrated in this work.

That the reader, unacquainted with this system, may obtain farther information respecting it, I subjoin a short history of its rise and progress, as given by Dr. A. H. Porter, and published, with a series of other communications on the same subject, in a controversy with a mineral physician, in the Lynn (Mass.) Freeman, and in Dr. Thomas Cooke's Philadelphia Botanical Medical Reformer.

I confess I have some hesitancy in giving it, in consequence of the language being too laudatory, which may expose me to the charge of egotism. But justice to the persecuted cause in which I am engaged seems to demand it; and I hope this will be accepted as a sufficient apology for its insertion.

THE REFORMED OR VEGETABLE SYSTEM OF MEDICAL PRACTICE.

"In the western states the reformed practice has been thoroughly tested, and, if I may

credit the authority of a respectable individual who has resided in one of them for a number of years, is fast rising in public estimation, and will sooner or later eclipse the mineral system, and become the most popular and successful practice of the day. It is because the people see that vegetable medicines are safer than mineral, and equally or even more efficacious, that they prefer the former to the latter; and that has caused the system to spread with such unprecedented rapidity. In many places a mineral or old school physician can find no employment. Such is the hostility to bleeding and mercury, or, in other words, to the regular practice, that its advocates are sometimes obliged to abandon their system, or seek some other business to obtain a livelihood.

"The Botanic practice, as I have already observed, is fast penetrating into our northern and eastern regions. The name of its illustrious founder, Dr. Wooster Beach, will be held in everlasting remembrance for having been instrumental in bringing out of chaos, as it were, a system of medical practice founded on rational, philosophic principles. For, when we consider that no physician of the old stamp has dared publish to the world a scientific work on the reformed system of medicine, to Dr. Beach is certainly due unbounded praise for his independence and magnanimity in publishing one of this character, so able and useful as it is, when the whole medical faculty were arrayed against him. Possessing more than an ordinary share of native talent and intellectual acumen; with keen perceptive faculties, great discriminating powers, and a genius of the highest order, sanctified by the purest morality to the noblest ends, he was not content with being confined within the narrow limits of a mere professional career; his philosophic mind was for more extensive investigation into medical science, and to ascertain, if possible, 'what is truth.' As he proceeded onward, step by step, in the path of inquiry, he became convinced, to use his own language, 'that the present practice of physic and surgery, so far from being founded on correct principles, both in theory and practice, was absolutely a curse to society.'

"These sentiments grew with his growth, and strengthened with his strength, and constant observation confirmed him in the truth of them. Consequently he felt a deep solicitude to effect a reformation. At length he heard of a botanical physician of some eminence, Dr. Jacob Tidd, in the state of New Jersey, who obtained his medical knowledge of a German physician of high standing; and afterward obtained much valuable information from a relative who had been taken prisoner among the Indians during the war. Forty years' experience, united to these advantages, had acquired him a reputation, as a successful practitioner, that had spread far beyond his immediate sphere.

"Dr. Beach, determining to avail himself of all the means of obtaining the requisite knowledge, visited Dr. Tidd, studied medicine with him, and, after remaining with him until his death, succeeded him in his practice. Thus armed and equipped with that knowledge which was one day aided by experience to establish his fame as a scholar and a physician, he entered upon the practice of medicine with flattering prospects of success. He soon cured some cases that had been considered hopeless, an account of which reached the city of New York, and he was on that account sent for to attend some of those of a similar nature. His success was so signal and satisfactory, that the report of it was soon circulated to such an extent that he received numerous solicitations to remain in the city, to which he finally consented. 'He embraced the opportunity of attending the lectures in the city Medical College of Mineral Physicians in New York, where he graduated, and received a Diploma according to the laws of the state.'

"His attention, however, was not all diverted from the Botanic Practice; if anything, his opinion of it became strengthened, being more than ever convinced of its superiority over that pursued by the mineral physicians.

"'In 1827 Dr. Beach erected an infirmary for the reception of patients. From 1st of June, 1827, to 1st of June, 1828, twenty-one hundred patients were attended at this institution under the superintendence of Dr. Beach, aided by others, who had formerly been his private pupils.' In the treatment of diseases he became so skilful and successful that his fame spread far and wide, and he was sent for from various sections of the country to consult with distinguished surgeons and physicians in every variety of complaint.

"He also attended many thousands of cases at the United States Infirmary, and prescribed for over one thousand cases of cholera, under the appointment of the New York Board of Health, in the short space of three months. In the year 1829, through his instrumentality, and that benevolent feeling and high regard for the prosperity of the cause of medical reform for which he was eminently distinguished, a college was erected

and opened, denominated the 'Reformed Medical College of New York,' for the express purpose of teaching the various branches of medical science, and the principles of the botanic or reformed system of practice. The erection of this college led to the formation of a society called the Reformed Medical Society of the United States. And in 1830, in accordance with a resolution adopted by the aforesaid society, a school was established at Worthington, Ohio, as the medical department of the Worthington College."

"If," says a respectable physician, "all the sick relieved and cured by the reformed or vegetable practice could be assembled together, a fair statement of their cases and continuance of their diseases made out, I am convinced the world would be amazed at the multitude and the results; and at the victory obtained over sickness and death, so signal and triumphant."

And may I not with propriety add, could all those who have been made the dupes of the mercurial practice be assembled together, and a fair statement of their cases and the mode of treatment to which they were subjected made out, I am constrained to think that very few would present sound and healthy constitutions. The world would be astonished at the multitudes with exfoliated bones, ulcerated gums, carious teeth, swollen tongues, scrofulous nodes, fetid breath, mercurial eruptions, &c. And yet people, enlightened as they are, and eye-witnesses of the awful consequences of the use of mineral poisons, will persist in their use, and recommend them to their sick neighbours. Does any one doubt the efficacy of vegetable medicines in the cure of disease? Let him go into the western states, and I'll be bound to say he'll come back an advocate of the reformed practice. He will there learn that bleeding, blistering, and mercury will not invariably conquer even the mildest cases, while vegetable remedies have done what mercury and its preparations could not do.

To show still farther the estimation in which the reformed practice is held by those best acquainted with it, I add an extract of a letter from Dr. J. King, dated New Bedford, Mass., June 28th, 1842.

"I am about preparing a new set of lectures on the glorious reformed practice, and, on delivering them, intend to challenge debate and investigation from all, or any, who think they can maintain the opposite side.

"Although I am doing so well here, yet I must acknowledge that I prefer New York to any other place: the habits and customs here are not congenial to the spirit of a Yorker; everything is for money, and means money; and societies for mutual improvement, or even one small society, cannot be raised; yet I shall stay here, and do my best to raise the standard of reform, not only in New Bedford, but, if I live, throughout the state and country, and hope to see it triumphant, respected, honoured, and admired by all. My whole internal man is bent to this purpose. THOMSONIANISM and REGULARISM *must* fall before the superior worth of the AMERICAN PRACTICE. And what reformer, who has witnessed the success of this system, and the failure of the others—nay, not even failure, but the miseries produced—and has a mind of any feeling whatever, of any love to his fellow-creatures, or who possesses the smallest spark of humanity in his breast, would not devote his whole time and energy to the holy purpose of meliorating the condition of his afflicted fellow-beings, by placing before them, and forcing upon them, that system of practice which cures, and cures when all others fail?

"I have seen all this—I feel all this—and, with the help of Heaven, my voice shall yet be heard in tones of thunder against the MERCURIALISTS, and all their train shall tremble and fall down with fear and a knowledge of the truth. The only thing I regret is, that the author and founder of this system cannot retrograde his years, so that we could start together upon this noble enterprise; for it seems to me that we could in a much shorter time accomplish our aim. But never mind—go on, doctor; the respect, the esteem, the admiration, the love of mankind will always be with you; your system is destined to become the greatest and proudest ornament of the medical world.

"But I am getting too enthusiastical; yet I am almost always so on this subject, for I feel and know its importance to mankind: nevertheless, I feel that my enthusiasm is truth itself."

Thus GOD *has, in his infinite goodness, brought into existence a more rational system of medicine, in the place of one productive of such pernicious consequences; a system which heals disease with remedies more in conformity with the intentions of nature, and re-establishes health without destroying the source of life.*

The reader will at once perceive the propriety and necessity of a work calculated to

effect a change, or introduce a reformation, in the noble science of medicine: to lay before the public or the world a system of practice that is both negatively and positively better than that now pursued. First, negatively, that shall abolish the present pernicious treatment. Second, introduce a system that is infinitely superior; and the author professes to have accomplished these objects in the following pages. It is no vain experiment, hypothesis, theory, or conjecture, but founded upon the immutable and eternal principles of physiological truth, proved to be so by a series of experiments, illustrations, and facts deduced from extensive practice, which challenge the severest scrutiny, and court the minutest investigation from friends or enemies. We only ask a fair trial of the treatment recommended, (and this every honest man will acknowledge we are entitled to,) before they decide upon the merits or demerits of the practice.

This work is the result of long experience and great research, and the materials have been collected from a great variety of sources. Ancient and modern authors have been referred to and analyzed, and everything valuable has been retained. I have availed myself of all the information worth preserving, contained in every botanical publication which has issued from the press of this country or Europe; but I must confess that I have derived very little practical information from any of them.

I have spared neither pains nor expense to acquire a knowledge of the practice of the most noted botanical physicians, retaining from each everything which I have proved by experience to be useful. I have not thought it beneath me to converse with *root* and *Indian doctors*, and every one who has professed to possess any valuable remedy, or any improved method of treating any disease. The hints and suggestions of experienced nurses and female practitioners have not escaped my notice. "For," says a former president of the New York College of Physicians and Surgeons, "there is not a maxim or remark of any experienced female or nurse which is not based upon sound pathological principles." They are generally diligent observers of nature, and often point out her indications in a correct and masterly manner, which often disappoints the physician and the friends of the patient. I have also availed myself of every advantage arising from a regular course of study in the university of the state of New York. Besides, an extensive practice for many years in the most populous city in the United States, (New York,) with repeated consultations with the most distinguished surgeons and physicians, has afforded me opportunities of witnessing and treating every variety of disease, and trying every variety of practice

I have also attended many thousand cases at the *United States Infirmary*, where constant application was made for medical aid, in physic, surgery, and midwifery. During the epidemic, (a period of three months,) under the appointment of the New York Board of Health, we prescribed for about one thousand cases of cholera, either in the premonitory or confirmed stages.*

The information which I have received from others, the opportunities of clinical practice, the improvements I have myself made, have brought me into the possession of a system of practice which I have found invaluable, and altogether superior to that pursued by physicians of the old school. Schools have been founded to disseminate this practice, the graduates of which are giving us daily evidences of the unprecedented success of the system. One of our graduates writes as follows: "I have one objection to your practice—it destroys disease too soon. It gives me no opportunity to make a bill."

In a word, then, this work is the result of my observations, reflections, inquiries, investigations, researches, and experience from youth to the present period, most of which

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* By virtue of the power and authority in me vested as Alderman and Warden of Health of the Tenth Ward, I do hereby nominate, constitute, and appoint WOOSTER BEACH, M.D., to visit and take charge of, and to give such medical advice and assistance as may be required, to all poor persons, inhabitants of the ward, who may be affected with the prevailing epidemic; and also to call to his aid such assistance from the medical faculty as he may require and deem necessary and expedient.

July 17*th*, 1832. JOHN PALMER, *Alderman Tenth Ward.*

After receiving the above appointment, the corporation immediately issued, and posted up in every part of the ward, the following bill:

Tenth Ward Medical Station.—All persons affected with looseness, pain in the bowels, or cramp, are requested to apply immediately to Dr. W. BEACH, No. 95 Eldridge-street, where they will receive ADVICE and MEDICINE free of charge.

By order of the Board of Health.

THOMAS T. WOODRUFF,
HENRY R. ROBERTSON,
WILLIAM MANDEVILLE } *Executive Committee*

New York, July 18, 1832.

time has been exclusively devoted to it, with an assiduity which has almost wholly sacrificed my social enjoyments of life, and taxed my mind and body to a degree which has greatly impaired my health, and that, too, amid slander and persecution. I have suffered greatly in *mind*, *body*, and *estate*; yet I feel amply rewarded for all this in the consciousness, that my labours will result in alleviating the sufferings of my fellow-men.

Having given a very brief history of medicine from its commencement to the present time, and explained the nature and kind of practice which I have proved to be the best, I now proceed to show the necessity and the best means of disseminating it generally and also to point out some of the obstacles which retard its progress.

My first attempt to introduce the reformed system was, to appeal more especially to the profession, and, by educating suitable persons in its theory and practice, to disseminate it through the community. This has been done to a considerable extent by means of medical schools, and of the press; and likewise by various publications, such as *daily*, *weekly*, and *monthly* papers, and various treatises, tracts, &c.; and, lastly, by the publication of the AMERICAN PRACTICE OF MEDICINE, in three large volumes. Notwithstanding all these exertions, I find that the work does not spread commensurate with the importance and exigencies of the cause. I have, therefore, concluded, that the best method, in order to spread it more rapidly, and to bring it within the reach of all classes the most expeditiously, would be, to lay it directly before the people, and rely upon their good sense and intelligence for success, that they may avail themselves of its advantages, without receiving it through the tedious and expensive *medium* of interested professional men. This would not preclude the employment of such, if desired, but would qualify others to judge of their abilities.

I am confident that the public are capable of appreciating it, and prescribing for themselves and their neighbours. The system is simple, easily understood, and requires only common sense and judgment, with a little experience, to put it into practice. The only hope, then, of a reformation and revolution IN MEDICINE, under DIVINE PROVIDENCE, is, the dissemination of our principles through the great mass of the community.

"It is not less certain," says Professor Ratinesque, "but still more deplorable, that, beyond the immediate sphere of medical knowledge, the majority of the people are yet a prey to medical credulity, superstition, and delusion, in which they are confirmed by the repeated failures of theorists, and the occasional success of empirical rivals."

All classes should possess a general knowledge of anatomy, physiology, and the practice of medicine, both as a matter of interesting information and practical utility. "The only way," says a writer, "to banish quackery in any art or science, is, to diffuse a knowledge of it among mankind."

"As matters stand at present," says a writer, "it is easier to cheat a man out of his life than of a shilling, and almost impossible to detect or punish the offender. Notwithstanding this, people still shut their eyes, and take everything upon trust that is administered by any pretender to medicine, without daring to ask him a reason for any part of his conduct. Implicit faith, everywhere else the object of ridicule, is still sacred here. It would certainly be for our safety to have some check upon the conduct of those to whom we intrust so valuable a treasure as health."

The veil of mystery which still hangs over medicine renders it not only a conjectural, but even a suspicious art. This was long ago removed from the other sciences, which induces many to believe that medicine is a mere trick, and that it will not bear a fair and candid examination. Medicine, however, needs only to be better known, in order to secure the general esteem of mankind. Its precepts are such as every wise man would choose to observe, and it forbids nothing which, is compatible with true happiness.

Disguising medicine not only retards its improvement as a science, but exposes the profession to ridicule, and is injurious to the true interests of society. An art founded on observation can never arrive at any high degree of improvement while it is confined to a few who make a trade of it. The united observations of all the ingenious and sensible part of mankind would do more in a few years toward the improvement of medicine, than those of the faculty alone in a great many. Any man can tell when a medicine gives him ease, as well as a physician; and if he only knows the *name* and dose of the medicine, and the *nature* of the disease, it is sufficient to perpetuate the fact. Yet the man who adds one single fact to the stock of medical observation, does more real service to the art, than he who writes a volume in support of some favourite hypothesis

"Very few," says Buchan, "of the valuable discoveries in medicine have been made by physicians. They have, in general, either been the effect of chance or of necessity, *and have been usually opposed by the faculty till every one else was convinced of their importance. An implicit faith in the opinion of teachers, and attachment to systems and established forms, and the dread of reflections, will always operate upon those who follow medicine as a trade. Few improvements are to be expected from a man who might ruin his character and family by even the smallest deviation from an established rule.*"

"If men of letters," says the author of the above-mentioned quotation, "were to claim their right of inquiry into a matter that so nearly concerns them, the good effects in medicine would soon appear. Such men would have no separate interest from that of the art. They would detect and expose assuming ignorance under the mask of gravity and importance, and would be the judges and patrons of modest merit. Not having their understandings perverted in their youth by false theories, unawed by authority, and unbiassed by interest, they would canvass with freedom the most universally received principles in medicine, and expose the uncertainty of many of those doctrines of which a physician dares not so much as seem to doubt."

"No argument," continues he, "can be brought against laying open medicine, which does not apply with equal, if not greater, force to religion; yet experience has shown that, since the laity have asserted their right of inquiry into these subjects, theology has been improved, and the interests of real religion have been promoted."

Had other medical writers been as honest as this gentleman, the art had been upon a very different footing this day. Most of them extol the merit of those men who brought philosophy out of the schools, and subjected it to the rules of common sense. But they never consider that medicine at present is in the same situation that philosophy was at that time, and that it might be as much improved by being treated in the same manner. Indeed, no science can either be rendered rational or useful, without being submitted to the common sense and reason of mankind. These alone stamp a value upon science; and what will not bear the test of these, ought to be rejected.

I know it will be said, that diffusing medical knowledge among the people might induce them to tamper with medicine, and to trust to their own skill, instead of calling a physician. The reverse of this, however, is true. Persons who have most knowledge in these matters are commonly most ready both to ask and follow advice, when it is necessary. The ignorant are always most apt to tamper with medicine. Instances of this are daily to be met with among the ignorant.

The following observations, by Dr. N. R. Smith, are applicable: "Medical men have first obscured their art, and deluded the community into the belief, that in medicine there is some *charm*, some conjuration, or some mighty magic. Persons are disappointed, therefore, when they learn somewhat of the limited resources of our art, and readily transfer their faith to those who are ignorant, or dishonest enough to keep up the delusion. Men are indignant when we prescribe means as simple as the waters of Jordan, instead of smiting upon the part, and uttering some technical incantation.

"To disenthral the public mind, medical men must cast off the whole garb of the charlatan, nor suffer anything to remain which shall confound medical philosophy with empiricism. The profession must seize every opportunity to educate the community in the first principles of medicine.

"Undoubtedly the ingenuous part of our profession suffer most severely, not from the itinerant nostrum-monger, but from the scientific empiric—that member of the profession who avails himself of that which science reveals, but, in practice, associates it with the artifice of the charlatan. Splendid instances of success achieved by such can always be pointed out, and against them the honest part of the profession can vindicate itself only by educating the community in the true character of the science of medicine. I consider that it is an urgent dictate of humanity to furnish the community with a certain amount of knowledge, particularly in surgery; because at this time they are singularly ignorant of its simplest principles; because infinite mischief and suffering are created by its abuses; and because the maladies which demand the surgeon are such as brook not a moment's delay. Accidents often occur which prove immediately fatal, when the knowledge of a single fact would enable any individual at least to arrest the hand of death till more efficient aid could be procured."

"I believe," says Dr. A. H. McNair, author of "Medical Suggestions," "there might

be a great amount of suffering prevented, if parents and others were to pay some attention to the nature of disease and medicine." By reading half an hour every day, they would, in a short time, not only be able to detect the ignorant and malicious impostor, but to administer medicine at the commencement of a disease with a success which would often prevent a protracted illness. For the purpose of enabling my readers to do so with success, I have, in connexion with the treatment of diseases, described the nature of the medicine recommended, together with the effects they are to produce; and, notwithstanding diseases may sometimes be complicated, the treatment will be extremely simple, as well as successful. How many strong reasons might be assigned why the community generally should understand medicine. The least is, the numerous kinds of theories and treatment adopted by different physicians, each claiming superiority, and on any of whom we may have occasion to call in sickness, without knowing their claims to merit. Now, if each individual was acquainted with medicine, he would be able to detect quackery in any shape among doctors or nostrum-mongers. Besides, a person, or some of his family, may be taken suddenly ill from home, among strangers, or far from any physician. What a blessing to know the nature of the complaint, and the appropriate remedy: or, if he has this *treatise*, and a little *medicine*, he will be enabled in a few minutes to obtain the desired information and treatment. In a word, he has a physician and an apothecary ever in the house, ready to prescribe without fee or reward: in my estimation, therefore, the Family Physician is a treasure of inestimable value, in comparison with which, money dwindles into insignificance.

Reflect for a moment upon the benefit of a judicious system of medicine, which may be resorted to in cases of sudden emergency or attack of disease. Even if the common practice were good, it is often a long time before a physician can be found; and, besides, there are some cases where immediate attention is required, as in croup, cholera morbus, colic, &c., and which demand prompt and vigorous treatment at the onset. These attacks are liable to occur in the night, or on the ocean, or at a great distance from medical aid of any kind, as stated before

To show the benefit resulting from the possession of this work while travelling, and where no medical advice can be procured, I subjoin the following extract of a letter, dated Westfield, Mass., October 4th, 1841, from an aged and highly respected and talented lady, Mrs. Ruth Stebbins, who has devoted a long life to the promotion of the cause of medical reform. She has not only used her influence, but her money, to disseminate it. Her labours have been more particularly directed to the *unnatural* and *improper* practice of employing men instead of females in midwifery. She writes: "Go on, my dear brother, in your work of reform, relying on the strength of Jacob's God: no weapon formed against thee shall prosper; and every tongue that shall rise against thee in judgment thou shalt condemn, because the truth is great, and must prevail. I do pray, that God would give you wisdom and strength equal to your day; and, for your encouragement, I would say, that the sun is fast rising, and shining brighter and brighter on this cause of reform; and the more your books are read and understood, the more they are approved: and, in fact, the old school are working into the new, in adopting its principles as fast as they can, without confessing too much to suit their pride. But soon, I think, you will all lift up your voices together in defence of the vegetable art. Here I would mention, that a lady in Windsor, Conn., purchased a set of your books last fall, and presented them to her daughter, recently married, and bound to Canada. The daughter, in her first letter to her mother, returned her grateful thanks for her invaluable present, saying she had been very sick on her journey, and believed the information she obtained from the work actually saved her from an untimely grave. Perhaps this incident will promote the sale of your work, and spread the light into some dark corner of the earth. May the Lord grant it. I have frequently said to my friends, (as I now believe,) if I had been blessed with your attendance in the days of youth, I should now enjoy a healthy old age, instead of this constant wretchedness, which renders life almost a burden; and knowing, as I do, the destruction of *life* and *health* from mineral poisons, I do feel compelled to use my influence in favour of your Reformed Practice."

A person has just stepped into my office for medicine for his wife, who, he states, has been injured by bleeding; and, after subscribing for the Family Physician, stated that he knows a lady who has my Reformed Practice, and that it has saved her *hundreds of dollars*. She has made it her study, prescribes when it is necessary, and thus has become the "family physician."

Another person, who has subscribed for the Family Physician, notwithstanding he has my large work, states that two female members of his family are in the habit of prescribing, not only for themselves, but for their neighbours. Thus we see how much good may be done by a little correct information on this subject.

Let us, then, strip the profession of everything that looks like mystery and imposture, and clothe medical knowledge in a more simple garb. Truth is simple upon all subjects; but, upon those which are essential to the general happiness of mankind, it is obvious to the meanest capacities.

There is no man so simple that cannot be taught to cultivate grain, and no woman so devoid of understanding as to be incapable of learning the art of making that grain into bread; and shall the means of preserving our health by the culture and preparation of food be so intelligible, and yet the means of restoring it when lost be so abstruse, as to require so many complicated means for its application? To suppose this, is to call in question the goodness of the Supreme Being, and to believe that he acts without unity and system in all his works.

In no one of the acts of man do we behold more weakness and error than in our present modes of education. We teach our sons words at the expense of things. We teach them what was done two thousand years ago, and conceal from them what is doing every day. We instruct them in the heathen mythology, but neglect to teach them the principles of health. We teach them to predict eclipses and the return of comets, but we give them no instruction in the signs which precede general and individual diseases. How long shall the human mind bend beneath the usages of ancient and barbarous times? When shall we cease to be mere scholars, and become wise philosophers, well-informed citizens, and useful men?

From a review of what has been lately effected by our reformed system, I cannot help admitting with Dr. Hartley, that in that happy period predicted in the Old and New Testament, when religion shall combine its influence upon the passions and conduct of men, there will be discoveries in medicine. Christian missionaries shall procure the same credit and kind reception among pagan and savage nations, *by curing diseases by natural means*, which the apostles obtained by curing them by supernatural power. Yes, the time I believe will come, and is near at hand, when, from the perfection of our science, with uniformity of climate, men shall be so well acquainted with the method of destroying poisons, that they shall tread upon scorpions and serpents without being injured by them, and mothers, from their knowledge and use of the same antidotes, shall cease to restrain a sucking child from playing on the hole of the asp, and the weaned child from putting his hand on the cockatrice's den. Suspended animation, if it should occur in that enlightened state of the world, shall no more expose the subjects of it to premature interment. Pestilential diseases shall then cease to spread terror and death over half the globe; for *interest* and *prejudice* shall no longer oppose the removal of the obvious and offensive causes which produce them.

Lazarettos shall likewise cease to be the expensive and inhuman monuments of error and folly in medicine and in government. Hospitals shall be unknown, (the liquor and drug shops will be destroyed,) the groans of pain, the ravings of madness, and the sighs of melancholy shall be heard no more. The cradle and the tomb shall no longer be related, for old age shall then be universal.

Let all the remote causes of diseases, and, above all, let the resources of our profession in the materia medica, (which is nothing but a combination of error, got up by chance and conjecture, what Prof. Jœrg pleases to call a medical romance,) be subjected to fresh examinations. New remedies remain yet to be discovered; but most of the old ones demand new experiments and observations, to determine their doses and efficacy. It is impossible to say how much the certainty of medicine might be promoted and its usefulness increased, by more extensive knowledge of its application.

How interesting and useful for children and youth, as well as others, to acquire some knowledge of their own frame, the means of preserving their health, and the nature and treatment of diseases by the use of those ingredients which grow in their gardens, fields, or forests. It not only enlightens them in *medical botany*, but enables them to be their own physicians, and likewise the physicians of their poor neighbours. This must always prove a source of consolation; and how desirable to the benevolent mind, when it can be accomplished by agents which a bountiful Creator has scattered so richly around them, and placed within their reach.

The collection and preservation of medical *plants, roots, barks, &c.*, will not only offer an innocent, but a useful and perhaps profitable employment. It will not only contribute to the relief of suffering humanity, but prevent a vast amount of expense, which may be saved to a family or an individual by avoiding *apothecaries* and *doctors' bills*, and, what is better, their poison.

"The day has certainly arrived when medicine, like religion, should be placed before the face of the world stripped of all its mysteries, all its absurdities and professional intricacies, and appear in its genuine simplicity and rationality, open and undisguised before all who wish to examine and understand it." I have too exalted an opinion of Deity, to believe that he will permit mankind to be tortured much longer with a practice so clearly pernicious to the workmanship of his hands. The ice has been broken, or the way prepared; the flame is here and there bursting forth; and it appears to me that the cause of reform will hereafter spread more suddenly and rapidly than at any former period.

In relation to botanic physicians in general, the following remarks of an author are very applicable:

"The author has long seen, and with regret, the want of something like a general, systematic treatise upon the different branches appertaining to medicine, on a plan adapted to the peculiar profession of botanic physicians; and he has looked anxiously for some one more competent to the task to undertake it: but as yet no work of the nature of the one proposed, even professedly, has appeared, that I am aware of. Many books, indeed, have been written upon botany; but they have chiefly been either a scientific classification of plants, unconnected with their medical properties; or mere fugitive treatises upon the medical qualities and uses of particular plants, which, though very useful as far as they go, were not intended by their authors as a general guide for the practice of physic. Impelled, then, by the necessity of a work such as is proposed above, the author has attempted, in the following pages, to supply it: how far he has succeeded, others will determine. This, however, he can confidently assure the members of the botanic profession, that in his hands the treatment of diseases recommended has proved eminently successful; and it would be but a poor compliment to his Botanic brethren to suppose, that in their hands it would not be equally efficacious.

"It will not be denied, that the depressed, and almost outlawed, condition under which botanic practitioners have laboured in modern times, is in a great measure owing to the deficiency of a substantial, comprehensive, and regular system of practice, which should render them *independent* of any other sect, elevate them to a standard of respectability, and remove all grounds for the imputations of ignorance and incompetency, which are now so lavishly heaped upon them by interested persons. Until such a standard is established, societies formed, and the botanic profession *brought up to that standard*, public confidence in them, as a body, cannot be expected.

"And, I would ask, what should hinder the accomplishment of so desirable an object? Are botanic medicines so intrinsically inefficient, or so deservedly unpopular, that they should for ever be condemned to insignificance? None dare say it. Who has not, in the course of his life, seen astonishing cures performed by the simple virtues of vegetables—even when administered by the humble man of 'roots and herbs,' when the whole force of minerals has failed? Does any one say, that vegetable medicines are less safe than minerals? Alas! the miserable martyrs to the latter, who daily meet our eyes, forbid it. Why, then, do we grovel in the dust, when the Almighty has put in our possession such ample materials for relieving the sufferings of our fellow-beings? And why are we permitted to render this service only with halters about our necks? Why is it that the botanic profession is proscribed in most of the states by legislative restrictions, which in many of them amount to absolute tyranny, as unconstitutional as unjust? If there is a shadow of a cause for such oppression, aside from the assiduous misrepresentations of interested persons, it is because botanic physicians are not just to themselves. Let them unite, form societies, establish a respectable and intelligent standard of admission, and the favour of the public will soon break their fetters."

"The time has arrived when those dark mists—the spell which has so long bound true science to the car of superstition—should be dissolved, the chain broken, the mist dispersed, and the standard of science erected upon that true and imperishable foundation —FACTS AND EXPERIENCE! It is time that the reign of medical tyranny should cease it has ruled the world with an iron grasp. Thousands have been the victims sacrificed

at its shrine. Let revolution—revolution be the cry through mountain and glen, valley and plain, until this hydra of medical aristocracy be shorn of its fangs—until the tears shed by suffering humanity shall cease to flow, and the sunshine of hope cast abroad its bright beams of joy upon a no longer oppressed and suffering human nature. Let those parents who have lost a beloved child by that violent and ignorant practice which characterizes the medical profession, raise the cry of revolution! Let her whose home is left lonesome and desolate, without friend or protection for her orphan children—who feel the untimely death of a father and friend—all, all raise the cry of revolution! Let them at once refuse admission to their threshold the administrator of poison, or his violent depletive agents. Let ALL unite in this great work, and the ruddy countenance and vigour of mind and body will soon afford the most ample evidence *that the work is done!*"

"The leaven of reform," says a writer, "is working well in our country, although there is only a beginning; it is perceptible in the community generally, so readily does truth commend itself to the human mind. Custom, interest, and ignorance growl brutally, or scoff foolishly; but growls and scoffs cannot subdue truth, nor drive it out of the field; it is destined to pursue the last of error's whelps to a deeper den than that to which Putnam drove the Pomfret wolf; and if it comes forth thence again to light, it must come as Putman brought forth his—dragged out dead, to feast the eyes of righteous execration."

I have given a history of medicine, and shown the necessity and *utility* of disseminating it among the community at large. I have now to point out some obstacles which stand in the way of its prosperity and progress:

1*st. Selfishness.*—It is self-interest which retards the progress of the reformed system. Most physicians, and others, will follow that kind of practice which is the best established and the most profitable. Like the tories in the revolutionary war, they care more for their pockets than they do for the welfare of their fellow-men.

2*d. Want of Integrity.*—A lamentable want of honesty is another cause. Many are fully convinced that the reformed system is the best; but, for some cause or other, they will not embrace it.

3*d. Prejudice.*—Many look with an eye of prejudice on all innovation and reform; and where there is prejudice there is *blindness*, and, consequently, no reception of the truth. The effect of truth upon the minds of such may be compared to light upon the owl; it is sure to set them *screeching*.

4*th. Ignorance.*—Many persons are totally ignorant of the principles of the reformed system, and, therefore, condemn it without knowing anything about its merits. They judge from reports, or the lies and slanders of its enemies. Not only so; often, when a skilful physician of the new school is called to prescribe, some one in the house, or a neighbour, perfectly ignorant of the disease, and also of his skill, will, from some impulse, condemn his prescriptions. I lately had a case of a very interesting child with putrid sore throat, the symptoms of which, under my treatment, were favourable; but the mother thought she knew best, and would employ a mineral doctor, although she had previously lost three or four children in a short period under the same treatment. I left, with the emphatic remark, that the patient was then doing well, and that, if it died, I should be exonerated from all responsibility.

The doctor, though apparently very friendly, exulted to obtain the patient, and considered it, no doubt, quite a victory. But in a few days I was invited to the funeral of the child. I was once before dismissed from a case by a female *Jezebel*, which was also doing well, and which was subsequently attended by the same physician. But shortly I saw a coffin taken into the house for the little sufferer. I mention these cases by way of illustration. *Ignorance*, then, is another powerful obstacle in the way of reform; and, what is very lamentable, there is no cure for it. Well might Solomon say, "Though you bray a fool in a mortar with a pestle, yet will not his folly depart from him." Let it be *remembered, that it takes a man of sense to judge a man of sense.*

5*th. Popularity, Pride, Fashion, &c.*—Such is the power of custom, fashion, popularity, and pride, that many would rather die, than embrace anything contrary to established usages, lest they should be thought singular: they would rather perish under a fashionable doctor, than be cured by any one persecuted or unfashionable.

6*th. Midwifery.*—Another great difficulty of introducing a better practice is, the unnatural and wrong custom of employing males, instead of females, to attend in parturition. Women have been taught to believe a most notorious falsehood, viz., that none

but doctors are competent to attend at this period; and thus they become alarmed, and employ them instead of females. In this way the physician becomes identified with the family, and gains such an influence and ascendency over their minds, that they believe every assertion he makes. Thus physicians prejudice persons against all reformers, pronouncing every deviation from their pernicious treatment "quackery." Their slanders and falsehoods so operate upon the minds of people, that they reject the botanic treatment even against their better judgment, and are thus kept ignorant and deceived. But, when a few more of their relatives or friends have been injured or destroyed, perhaps their eyes may be opened to these impositions.

I have sometimes almost despaired of ever extending the blessings of this system to adults, or at least to those over forty years of age. Their minds are too much warped or prejudiced. It is to the rising generation that we must look for the reception of new truths: and is it not a righteous judgment, that such are not permitted to participate in these blessings in consequence of their own *wilful* blindness or prepossessions?

There are few greater obstacles to the promotion of true medical improvement, than attachment to some favourite theory or practice, infused by noted teachers or authors, or by the popular schools of the day. They so pervert the mind or judgment, that it becomes incapable of receiving simple facts, although they may not be conscious of it in some measure at least. In this state of mind it is very difficult to be really *impartial* and *honest*. A very good and wise man has explained this matter by an illustration so true and striking, that I will here relate it:*

"A watchmaker told me that a gentleman put an exquisite watch into his hands, that went irregularly. It was as perfect a piece of work as was ever made. He took it to pieces, and put it together again, twenty times. No manner of defect was to be discovered, and yet the watch went intolerably. At last it struck him that the balance-wheel might have been near a magnet: on applying a needle to it, he found his suspicions true. Here was all the mischief: the steel work in the other parts of the watch had a perpetual influence on its motions; but the watch went as well as possible with a new wheel. If the soundest mind be *magnetized* by any predilection, it must act irregularly, and which accounts for the errors of common physicians."

Men do not easily forsake old customs or forego their prejudices: hence the progress of truth has been proverbially slow; but she has, nevertheless, been constantly advancing. Nothing can arrest her march; her operations are sure; she will arrive at last at the true and highest attainable point through all the intermediate stages of opposition and difficulty. If selfish and personal interest were never brought into collision, there would be nothing to impede her progress; but this is perhaps inseparable from the nature of things; and those who labour for the reformation of abuses, must be content to endure much, and be inadequately rewarded. The consciousness of right is in many cases the sole recompense. It is not easy in any case to contend with the current; it is much easier to float with the stream. It is very certain that, if abuses in *medicine*, *religion*, *politics*, and everything else were never opposed, they would be perpetuated, and all the evils of ignorance and error would be for ever entailed upon the human race. What *innovation*, however important in itself, or beneficial in its consequences, ever claimed immediate and general approbation? No matter how good in itself—no matter what the amount of certain good it was calculated to accomplish—it has been denounced as contrary to ancient usages, and incompatible with custom.

In concluding this preface, I will quote a few remarks from a late production, entitled "Manual of the Materia Medica." The editors observe:

"We like and admire the ingenuous maxim promulgated by the celebrated Baglivi. 'I am,' said he, 'neither for the ancients nor for the moderns but shall be of every age and nation.' This candid and philosophical declaration shall also be our motto. We have observed, in our addition to this work, as much as has laid in our power, the admirable rule—'*Prove all things, hold fast that which is good.*' For, as the same author remarks, 'to prejudge other men's notions before we have looked into them, is not to show their darkness, but to put out our own eyes.' We cannot see without regret, therefore, the constant opposition which everything *new* encounters from some individuals who can read the past only, but will not admit, or cannot understand, the improvements of the present. The history of medicine offers us but too many examples of this system

* Cecil's Remains, on Judging Justly.

of opposition to everything that is not *antique;* and the difficulties which the justly celebrated Harvey, Jenner, Bichat, Gall, and Broussais experienced in promulgating their useful discoveries and doctrines, are remarkable instances of this spirit so hostile to every suggestion of improvement or innovation.

"Locke, that great master of *matter, mind,* and *human passions,* has faithfully, although quaintly, recorded this feature of the character of man, too much to the purpose not to be cited in this place.

"'Truth,' says he, 'scarce ever yet carried it by vote anywhere at its first appearance New opinions are always suspected, and usually opposed, without any other reason than because they are not common. But *truth,* like gold, is not the less so for being newly brought out of the mine. 'Tis trial and examination must give it price, and *not any antique* fashion; and though it be not current by public stamp, yet it may, for all that, be as old as nature, and certainly not less genuine.'

"At the present epoch, when the collision of opposite and conflicting opinions is so great, it is very needful to refer from individual practice and experience to nature, unbiassed observation, general principles, and sound philosophical induction.

"Although there has been no lack of endeavour to render the work as accurate, useful, and satisfactory as possible, yet still it may be found deficient in one or all of these particulars: errors no doubt there are, sufficiently numerous to require the exercise of much charity, and an equal share of candour to excuse; neither of which, however, is solicited; for they are only desirable or estimable so far as they are the *spontaneous* effusion of generous and enlightened minds.

"We expect that indulgence which the zeal for doing well, and the desire of aiding the advancement of medical science, even when not attained, always deserves. In conclusion, we shall say of our labour (if small things may be compared to great) what the the celebrated Johnson said of his dictionary: 'In this work, when it shall be found that much is omitted, let it not be forgotten that much likewise is performed; and though no book was ever spared out of tenderness to the author, and the world is little solicitous to know whence proceeded the faults of that which it condemns; yet it may gratify curiosity to inform it, that this work was written with little assistance of the learned, and without any patronage of the great; not in the soft obscurities of retirement, nor under the shelter of academic bowers, but amid inconvenience and distraction.'"

Friends may flatter, and enemies may defame, but the public at large will do justice, because they are far removed from the sphere of personal feeling. It is to this tribunal I appeal for a decision of the *merits* or *demerits* of this work.

I may add, that the style of the work, so far as practical, has been rendered simple, and the words and phrases selected with special reference to the ordinary language of persons not accustomed to medical terms.

Simile of both sides of Gold Medals awarded Dr. W. Beach, by the King of the French and King of England in honor of his great work THE AMERICAN PRACTICE OF MEDICINE.











English Seal.



French Seal.



King's Librarian Seal.

FOREIGN RECOMMENDATIONS.

Copy of a letter from PROFESSOR VON HUFELAND, *First Physician to his majesty*, KING OF PRUSSIA, *to* DR. LOBSTEIN, *of this city.*

Berlin, Sept. 10. 1834.

Ew. Wohlgeb.

Habe ich die Ehre anzuzeigen, daß ich Ihr und Herrn Dr. Beachs Brief nebst dessen interessante Buch, so wie auch ein Exemplar desselben nebst Schreiben an S. Majestät den König, richtig erhalten habe, daß S. Majestät dasselbe sehr gnädig aufgenommen, und an Herrn Dr. Beach eine goldene Preis-Medaille durch den Preussischen Gesandten in Amerika gesendet haben; daß ich schon in diesem Frühjahr eine Antwort und Danksagungs Brief an Sie und Herrn Dr. Beach nebst den Diplomen für beide als correspondirende Mitglieder der Med. Chir. Gesellschaft zu Berlin abgesendet habe, und daß ich hoffe es werden nun Alle richtig in Ihre Hände gekommen sein.

Ich bitte Sie mir davon gefälligst Nachricht zu geben, und bin mit der vollkommensten Hochachtung

Ihr
ergebenster
v. Hufeland.

(TRANSLATION.)

HONOURABLE SIR—I have the honour to announce to you that I have received your letter and DR. BEACH'S, with a copy of your interesting work accompanied by a letter to his majesty, the king. His majesty has politely accepted it, and has sent, through the Prussian minister in America, a GOLDEN PRIZE MEDAL to DR. BEACH.

I sent this spring an answer and a letter of acknowledgment to you and DR. BEACH, with diplomas to you both, as corresponding members of the Medical and Surgical Society of Berlin; and I hope that the same have all been safely received; if so, have the kindness, I pray you, to inform me of it.

I am, with the highest consideration, yours,

Berlin, September 10th, 1834. VON HUFELAND.

Extract of a letter from DR. VON LUDWIG, *First Counsel and First Physician to his majesty*, KING OF WURTEMBURG, *to* DR. LOBSTEIN, *of New York.*

Das interessante Werk des Herrn Prof. Beach welches meinem gnädigen Monarchen zugeschickt wurde, habe ich durchgelesen und meinen günstigen Rapport darüber abgestattet, und es freut mich wenn bei Anerkennung welche Herrn Dr. Beach auf meinen Antrag zukam demselben Vergnügen gemacht hat.

VON LUDWIG.

(TRANSLATION.)

The interesting work of PROF. BEACH, which he has sent to his gracious majesty, I have read and made a favourable report of; and I am glad if the acknowledgment which DR. BEACH has received by my report to his majesty will afford him satisfaction.

April 19th, 1836. VON LUDWIG.

Copy of a letter from BARON VON LEHR, *Privy Counsellor to his majesty, the* KING OF WURTEMBURG, *to* DR. W. BEACH, *of New York.*

Docteur et Professeur
BEACH,
a
New York.

Dàpres les voeux enoncés dans la Lettre que Mr. Le Docteur Lobstein m'a fait l'honneur de m'écrire sous le 31 Janvier, j'ai transmisà Sa Majesté Le Roi Vos deux Lettres du 10 Janvier et 27 Avril, qui me sont parvenues ensemble, ainsi que L'exemplaire de Votre savant Ouvrage, *The American Practice of Medicine*, dont Vous m'avez chargé pour Lui. Sa Majesté, très sensible à l'attention que Vous avez voulu Lui témoigner par cet envoy, m à chargé de Vous en faire Ses grands remercimens, et de Vous prier, Monsieur, d'être persuadé de l'accueil favorable, dont Elle a honoré l'ouvrage, qui vient de sortir de Votre savante plume, et qui saus daute ne saura manquer d'emporter le suffrage de tous les connoisseurs èclairés.

Je Vous prie en mêmetems, Monsieur, de vouloir bien être assuré de toute ma reconnoissance pour la marque flatteuse d'attention et de Bienvieillance que Vous avez daigné me donner, en me rendant possesseur d'un Exemplaire de Votre précieux Ouvrage, et que je ne desire rien tant, que de trouver l'occasion de Vous être agréable en tout ce qui dépendra de moi et pourra tourner à Votre satisfaction En attendant veuillez agréer, Monsieur l'expression des sentimens d'estime et de considération les plus disingués, avec lesquels j'ai l'honneur d'être

Monsieur,

Votre très humble el très devoué serviteur,
Le Conseillé intime de Lègation,
F. DE LEHR

Stutgard le 11 Octobre, 1833.

(TRANSLATION.)

SIR—After the request contained in the letter that Mr. Lobstein did me the honour to write on the 31st of January, I transmitted to his majesty, the King of Wurtemburg, your two letters, of the 10th of January and 27th of April, which were received together, as well as the copy of your learned work, "The American Practice of Medicine," which you sent to me for him. His majesty, very sensible of the attention that you have been pleased to manifest toward him by this present, has directed me to express to you his sincere thanks for it; and that you, sir, may be persuaded of the favourable reception with which he has honoured the work that has just flowed from your learned pen; and which, without doubt, will not fail to obtain the approbation of all enlightened persons.

I pray you at the same time, sir, to be well assured of all my gratitude for the flattering mark of attention and kindness which you have deigned to give, in rendering me the possessor of a copy of your precious work; and that I desire nothing so much as to find an occasion of being serviceable to you in everything that may result to your satisfaction.

In the meantime, be pleased, sir, to accept the expression of the most distinguished sentiments of esteem and consideration; with which I have the honour to be,

Sir, your very humble and very devoted servant,
F. DE LEHR.

Copy of a letter from BARON ALIBERT, *First Physician in the Hospital of St. Louis, Paris, to* DR. J. F. DANIEL LOBSTEIN, *Professor of Midwifery, New York.*

Mon chèr, et très Honoré Collègue,

J'ai reçu la lettre que vous avez eu l'extrême bonté de m'écrire, L'ouvrage excellent de Mons. le Professeur BEACH, m'est aussi parvenue; je vous suppli d'être mon interprête, auprès de cet homme, si recommandable, et de lui transmettre mes plus vives reconnoissances

J'ai en ce moment, chez-moi, deux paquets; l'un à votre addrese, l'autre à l'addrese de Mons. le Docteur BEACH, les deux paquets contiennent, chacun, un exemplaire de ma MONOGRAPHIE DES DERMATOSES, ie vous les enverrai.

Agréez, je vous prie, mon chèr Monsieur Lobstein, l'assurance de ma haute et parfaite considération.

BARON ALIBERT.

Paris, le 23 Août. 1833.

For Sir [illegible] of both sides of Gold Medals awarded by [illegible] King of Wurtemberg and the King of Saxony, in honor of his great work, The [illegible] of Animals.





Seal.







Seal.

(TRANSLATION.)

MY DEAR AND MUCH HONOURED COLLEAGUE—I have received the letter which you had the extreme goodness to write me, and also DR. BEACH'S excellent work. I beseech you to become my interpreter to this meritorious man, and to transmit to him my liveliest acknowledgments.

I have this moment in my house two packages—one directed to you, and the other to DR. BEACH: each package contains a copy of my *Monography of the Cutaneous Diseases*. I will send them to you.

Accept, I pray you, my dear Mr. Lobstein, the assurance of my high and perfect esteem.

BARON ALIBERT

Paris, August 23d, 1833.

Copy of a letter from BARON VON LEHR, *Privy Counsellor of his majesty*, KING OF WURTEMBURG, *to* DR. LOBSTEIN, *of New York.*

Wohlgebohrener,
Hochzuverehrender Herr Professor.

Euer Wohlgeboren habe ich auf höchsten Auftrag Seiner Majestät des Königs auf das Schreiben vom 12. Nov. v. J. welches sie durch meine Vermittelung an Höchst dieselben eingesandt, nebst des früher an Seine Königliche Majestät eingeschickten Werkes "*The American Practice of Medicine*," von Herrn Professor Dr. W. Beach in New-York, die Ehre zu eröffnen, daß des Königs Majestät dieses interessante Werk in Gnaden aufzunehmen entsprochen haben, und Euer Wohlgebohren ersuchen lassen, die beifolgende goldene Preis-Medaille dem Herrn Professor Beach als einen Beweis der höchsten Anerkenntniß seiner ausgezeichneten Verdienste um die Wissenschaft der Medicin im Namen des Königs zustellen zu wollen.

Indem es mir zu einem besonderen Vergnügen gereicht, mich dieses höchsten Auftrags hiemit zu entledigen, ersuche ich Ew. Wohlgeboren mich vom Empfang des gegenwärtigen zu benachrichtigen, und habe die Ehre mit der ausgezeichnetsten Hochachtung zu sein

Ew. Wohlgeboren,
Gehorsamster Diener,
Geheimer Legations Rath,
von Lehr.

Stutgard, d. 9. Juli, 1835.

(TRANSLATION.)

HONOURED PROFESSOR—Having received the high order of his majesty to announce to you that his majesty has received your letter of Nov. 12th, which you forwarded to me, and DR. BEACH'S work, "THE AMERICAN PRACTICE OF MEDICINE," which was delivered by me to his majesty; the KING has been pleased to accept the same, and to request you to present to the doctor, in the name of his majesty, this letter, and the enclosed GOLD PRIZE MEDAL, as a testimony of his majesty's acknowledgment of the author's distinguished merit and skill in Medical Science.

With the greatest pleasure I obey his majesty's high commands; at the same time requesting you to inform me when the present shall have arrived.

I have the honour to remain, with the highest consideration, your obedient servant,

VON LEHR, Privy Counsellor

Stutgard, July 9th, 1835.

Copy of a letter from the Secretary of State of his holiness, Pope Gregory 16*th*. No. 56,623.

Roma, 2 Marzo, 1837.

Illmo Signore—Si c degnato il S. Padre di gradire la bella opera Medica in tre volumi, che il suo datto Antere il Signr. Professore Beach di New York, ha voluto tributargli ir omaggio di devozione versu la sua sacra persona. Il Santo Padre redendo onorataquest opera dul voto di tanti Sovrani di Europa c di tanti distinti Professor dei duc Mondi, ha voluto anior Egli ricamliare il deno con una Medaglia d'oro di *Benemerenza*, che io mi fo un devere di rimettere qui unita a U. S. affinchi Ena quinga a Signr. Drc. Beach pr to steno mezzo, onde l'opera———lin i guinta a sua Santita accompagna————da una lettera motto onorifica del Signr. Professore D. Lobstein, il oni neme i chiaro egualmonte ir Europa, che ir America Mei e grato ir questo incentro il ripetere a U. S. le apicurazioni della mia distinta stima

Per l'Emo Segretarid, F. CAPACCINI, Sostituto,

Signr. Geo. Butler Sartori, Console Gl. Pontificio Negli Stati Uniti di America.

(translation.)

Rome, March 2, 1837.

Illustrious sir—It has been the pleasure of his holiness to accept the valuable work on medicine, in three volumes, that the author, Dr. Beach, of New York, has presented as a mark of respect and devotion toward his sacred person.

The holy father, seeing this work honoured by so many sovereigns of Europe, and by so many distinguished professors in the two hemispheres, wishes also to interchange the gift with a medal of gold, and which I send to you to forward to Dr. Beach in the same mode in which the work was received by his holiness.

The work was accompanied by a very gracious letter from Professor D. Lobstein, who well known in Europe and America. Pleased with this occasion to renew the assurance my high consideration, I remain, &c., &c.,

For his Excellency, the Secretary of State,

F. F. CAPACCINI, Acting.

To Jno. B. Sartori, Consul Gen. of Rome to the United States.

Copy of a letter from Baron Alibert, *Physician to* Louis Phillippe, King of the Feence, *to* Dr. Beach, *of New York.*

Docteur et Professeur
Beach,
à
New York.

Mon très illustre et très Honorable Collégue,

J'ai reçu dans son temps le grand et admirable ouvrage que Vous avez eu l'extrême bonté de me faire parvenir. C'est un modele d'analyse, c'est un chef d'œuvre de méthode et d'experience mèdicinale. Je prends la Liberté de Vous envoyer en retour pour un aussi beau présent, un exemplaire de ma *Monographie* des *Dermatoses*. Je Vous prie de vouloir bien agréer cette légère offrande, comme un foible témoignage de ma très haute considération pour vos talens distingués.

LE BARON ALIBERT,
Professeur à la Faculté de Mèdecine de Paris,
Mèdecin en Chef de L'Hopital, Saint-Louis.

(translation.)

Doctor and Professor Beach, N. Y.:

My very illustrious and honourable Colleague—I have received your *great* and *admirable* work, which you had the extreme kindness to send me. It is a model of analysis, and a masterpiece of method and medical experience.

I take the liberty to send you, in return for your excellent present, a copy of my work, entitled "Monography of Cutaneous Diseases." I hope you will receive it as a feeble testimony of my very high consideration for your distinguished talents.

BARON ALIBERT,
Professor of the Medical Faculty of Paris,
Chief Physician to the Hospital of St. Louis

... of Gold Medals awarded Dr. W. Beach ... the King of Tuscany, and the Pope of Rome, in honour of his great work ...













Copy of a letter to Dr. W. Beach, *President of the Reformed Medical Society, New York, from* Professor Hesselbach, *Doctor of Physic, Professor of Philosophy and Surgery, First Physician and Surgeon in the Hospital at Bamberg, Corresponding Member of many distinguished medical societies and literary institutions of Europe, and Honorary Member of the Medical Society of New York.*

Wohlgeborener Herr President
Hochgeschätzter Herr Collega.

Mit dem innigsten Danke für das unter Ihrem Präsidium der reformirten medizinischen Gesellschaft der Vereinigten Staaten von America zu New York mir ertheilte höchst ehrenvolle Diplom und der gutigen Zusendung Ihres vortrefflichen medizinischen Werkes, überschicke ich Ihnen einige meiner litterarischen Arbeiten mit der Bitte, dieselben als einen Beweis meiner Hochachtung nicht zu verschmähen. Mögten meine Bemühungen den Beifall eines so competenten Richters erhalten.

Mit ausgezeichneter Verehrung und Hochachtung
verbleibe ich
Dero Ergebenster.
ADAM KASPAR HESSELBACH, M.D., &c

Bamberg, am 12. April, 1834.

(translation.)

Mr. President:

Honourable Colleague—I have the pleasure to acknowledge the reception of your valuable and excellent work, and the Diploma of the Reformed Medical Society of the United States. In return I send you copies of my various medical works, and I pray you to accept them, as a token of my highest consideration. It would be flattering to me if my labours could obtain the approbation of so competent a judge.

With the highest respect,
I remain yours,
ADAM KASPAR HESSELBACH.

Bamberg, April 12th, 1834.

Copy of a letter from the Minister of the King of the Netherlands, to Dr. W. Beach.

N. 95. 2d Division.

La Hague, le 18 Août. 1837.

Monsieur—Le Roi, mon auguste Souverain, ayant pris connaissance de l'ouvrage dont vous lui avez fait hommage sous le letre, *The American Practice of Medicine*, m'a chargé de vous offrir, en son nom, une medaille d'or, que j'ai l'honneur de vous faire parvenir ci-jointe.

En m'acquittant des ordres de sa Majesté, je vous prie monsieur, d'agréer les assurances de ma parfaite considération.

Le Ministre de l'Intérieur.
De KORK.

à
Monsieur le Professeur
W. Beach,
à New York.

(translation.)

No. 95. 2d Division.

The Hague, August 18, 1837.

Sir—The king, my august sovereign, having appreciated the work which you have respectfully presented to him agreeably to your letter, "*The American Practice of Medicine*," he has directed me to present you, in his name, with a GOLD MEDAL, which I have now the honour to present.

In acquitting myself of these orders of his majesty, I beg to apprise you of my great respect.

Minister of the Interior.
De KORK.

To Mr. Professor W. Beach,
New York

Washington, October 23, 1837.

Sir—I have the honour to transmit to you a letter, received to day from the Minister of Foreign Affairs of my government, to your address, which contains a GOLD MEDAL, which his majesty, the King of the Netherlands, desires should be presented to you in consideration of a work written by yourself upon *The American Practice of Medicine.*

It affords me great satisfaction to be the medium through which my sovereign's appreciation of the merits of this work is communicated.

I have the honour to be, with great regard, your obedient servant,

ALEX. MARTINI,
Charge d'Affairs of H. M., the King of the Netherlands, near the Government of the United States of America.

To Professor W. Beach,
New York.

Copy of a letter from Professor Von Walther, *Privy Counsel and Surgeon to his majesty,* King of Bavaria, *to* Dr. Beach, *of New York.*

Au
Docteur et Professeur
Beach, à New York.

Monsieur,

J'ai reçu l'exemplair de votre savant ouvrage, que vous m'avez envoye. Cet ouvrage si interessant et si instructive, vous met au rang des plus célèbres Auteurs dans notre art.

J'ai l'honneur d'être, avec la plus haute considération.

Monsieur, Votre très humble, et obeissant serviteur,

DE WALTHER,
Conseiller intime, &c.

(translation.)

To Dr. and Professor Beach, N. Y.:

Sir—I have received the copy of your learned work which you sent me. This work, so interesting and instructive, places you in the ranks of the most celebrated authors of our science.

I have the honour to be, with the highest consideration,

Sir, your very humble and
Obedient servant,
DE WALTHER,
Privy Counsellor, &c.

Munich, Oct. 17th, 1834.

Extract of a letter from Edward Andrews, LL.D., *and late Minister of the Gospel, London, one of the most learned and distinguished clergymen in England.*

14 West-street, Walworth, near London.
Friday, October 15th, 1841.

My dear Doctor—I do admire, beyond expression, your books. I keep them in my parlour, and they are constantly read.

It is a mercy that God has given you health and ability to produce such a work; which is, indeed, the confluence of many rills of thought running into one mighty ocean of instructive wisdom. What a blessed thing it is to know the Lord, to do all in his fear, and to perceive that He is enabling us to prosper. Mrs. Andrews unites in expressions of high esteem with yours in the Lord. Adieu, my dear Doctor.

EDWARD ANDREWS, LL.D.,
Minister of the Sutherland Chapel, Walworth, near London

Fac Similes of both sides of Gold Medals awarded by [illegible] Queen of Prussia in honor of his great work The [illegible]











Seal.

Copy of a letter from his majesty, the KING OF PRUSSIA, *to* DR. BEACH, *of New York.*

à
MONSIEUR BEACH,
Médecin, à New York.

J'ai reçu Monsieur, Votre Ouvrage que Vous m'àvez présenté, en date du 10 Janvier, e je vous engage d'accepter la médaille ci-jointe, comme une marque de ma reconnoissance
Berlin, le 23 Octobre, 1833.

FRÉDÉRIC GUILLAUME.

(TRANSLATION.)

SIR—I have received your work which you presented to me under date of January 10th, and request you to accept the enclosed GOLD MEDAL as a token of my acknowledgment.
Berlin, Oct. 23d, 1833. FREDERIC WILLIAM.

Copy of a letter from the Minister of the KING OF SAXONY, *to* W. BEACH.

Au Docteur et Professeur
BEACH,
à
New York.

Monsieur,

La Lettre du 10 Janvier de l'année derniere par laquelle Vous faites hommage à Sa Majestè Le Roi de Saxe, mon Auguste Souverain, de Votre ouvrage sur la médecine pratique de l'Amèrique, a été récemment délivree avec celui ci à sa haute addrese par Mr. Le Docteur CARUS, lequel, en même temps, a su l'accompagner d'un rapport infiniment avantageux et mettre au jour le mérite distingué que Vous avez acquis par la publication de ce trava...

Sa Majesté l'a donc reçu avec bien du plaisir, et a daigné me charger de Vous en exprimer Monsieur, toute Sa reconnoissance, ainsi que de Vous faire passer comme un témoignage ostensible du prix qu'Elle y attache, la médaille en or ci-jointe avec la légende "VIRTUTI ET INGENIO."

En m'acquittant de cette gracieuse commission, j'éprouve pour ma part une satisfaction particulière à pouvoir y ajouter l'expression de ma considération distingué.

Dresde, ce 2 Février, 1835.

Le Ministre D'Etat et des affaires étrangères de Sa Majesté Le Roi de Saxe.
JDE MINCKWITZ.

(TRANSLATION.)

To DR. W. BEACH:

SIR—The letter of the 10th January last, by which you presented to his majesty, my august sovereign, the KING OF SAXONY, your work on the American Practice of Medicine, has been recently delivered to its high address, with the work, by Dr. Carus, who at the same time has been able to accompany it with a report, infinitely advantageous to it, and to display the distinguished merit which you have acquired by its publication.

His majesty has received it with great pleasure, and has deigned to order me to express to you, sir, his acknowledgment for it; and to transmit to you, as a visible testimony of the value which he attaches to it, the enclosed GOLD MEDAL, bearing the motto, "VIRTUTI ET INGENIO:" (*To Virtue and Genius.*)

In discharging this grateful commission, I experience on my part a particular satisfaction in being able to add to it the expression of my distinguished consideration

Dresden, Feb. 3d, 1835. JO. MINKWITZ,
The Minister of State and Foreign Affairs of his majesty, the King of Saxony.

Extract of a letter from the KING OF THE FRENCH, LOUIS PHILLIPPE, *to the Author, through* MR. ROBINSON, *at Havre.*

The king, being desirous to encourage everything which has in view the melioration of suffering humanity, requests me to forward you the accompanying plates.

Copy of a Letter from the HON. W. MACMICHAEL, *Librarian to his Majesty, the* KING OF ENGLAND, *to Dr. Beach of New York.*

LONDON, Feb. 10th, 1836.

SIR—I am instructed to acknowledge the receipt of a copy of your work on "The American Practice of Medicine," presented by you to his Majesty, the KING OF ENGLAND; a present which the king duly appreciates; and I am commanded to transmit to you, on the part of his Majesty, the accompanying GOLD MEDAL.

I have the honour to be, sir, your most obedient servant,

W. MACMICHAEL,
King's Librarian.

From the GRAND DUKE OF TUSCANY, *Italy.*

MONSIEUR—S. A. I. et R. Monseigneur, le Grand Duc de Toscane, mon auguste Maitre, me charge de vous accuser la reception de l'Ouvrage que vous avez bien voulu lui adresser, avec votre lettre du 10 Avril, 1838, et il m'a invite de vous faire parvenir, avec ses remerciements tres distingues, la Medaille que vou trouverez ci-jointe, pour vous temoigner d'avantage le Souverain agrement.

Pour servir a ma tranquillite, je vous prie de me donner avis lorsque le Pacquet vous sera remis, cependent je saisis, avec plaisir cette occasion, pour vous assurer de ma consideration tres distingues, avec laquelle je suis.

Monsr. W. Beach, Votre tres humble servr.,
Docteur a LE COMTE DE LA SHEROOLOPO,
Neuve Yorch. Grand Maitre de la lourde dofeau.
Florence le 31 *December*, 1838.

(TRANSLATION.)

SIR—His serene highness, my lord, the Grand Duke of Tuscany, my august Master, has charged me to inform you of the reception of the work which you sent to his address, together with your letter of the 10th of April, 1838, and has instructed me to send you, with his best acknowledgments, the MEDAL which you will receive with this letter, as a testimony to you of his sovereign pleasure.

In order to afford me satisfaction, I pray you to accept of this packet which I send you; and be assured that it is with pleasure I avail myself of this occasion to assure you of the very high consideration with which I am your very humble servant,

Doctor W. Beach, COUNT SHEROOLEPO,
New York, Grand Master of the Palace.
Florence, 31*st December*, 1838.

Letter from the KING *and* QUEEN *of* FRANCE—LOUIS PHILIPPE *and* MARIE AMELIE—*aux Tuilleries, le* 10 *Janvier*, 1843.

CABINET DU ROI.

MONSIEUR—LE ROI et LA REINE ont reçu, par l'intermédiaice de M. le Ministre Plénipotentiare des Etats-unis, votre livre de science médicale. Leurs Majestés ont agrée cet hommage, et pour reconnaitre votre attention. Elles m'ont chargé, Monsieur de vous offrir une MEDAILLE qui reunit leur double effigie.

Agréez, Monsieur, l'expression de ma considération très distinguée.

Le Secrétaire du Cabinet,

Mr. le Dr. W. Beach, a New York. CAMILLE FAIN.

(TRANSLATION.)

At the Tuilleries, January 10th, 1843.

CABINET OF THE KING.

DR. W. BEACH, of New York—Sir—The KING and QUEEN have received your Book of Medical Science through the agency of his Excellency, the Minister Plenipotentiary of the United States.

Their Majesties have accepted of this token of your respect; and, in order to ex-

press their appreciation of your regard, they have charged me, sir, to offer you a MEDAL, in which their double effigy is conjoined.

Accept, sir, the expression of my very distinguished consideration.

The Secretary of the Cabinet,
CAMILLE FAIN.

CONSULAT GENERAL DE FRANCE AUX ETATS-UNIS.—CABINET. *New York, le 28 Avril*, 1843.

Le Consul general de France s'empresse de fair remettre a M. le Docteur W. BEACH un paquet que le cabinet de S. M. le roi des Français, lui a fait particulièrement recommander.

Il prie Monsieur le docteur BEACH de vouloir bien lui en accuser la reception, et d'agréer l'assurance de sa plus haute consideration.

Le Consul Général,
L. DE LA FOREST.

M. LE DR. W. BEACH, *Medecin a New York.*

(TRANSLATION.)

CONSULATE GENERAL OF FRANCE IN THE UNITED STATES.—CABINET. *New York, April* 38, 1843.

The Consul General of France hastens to deliver to Dr. W. BEACH, a package which the Cabinet of his Majesty, the King of the French, has particularly requested him to forward.

He begs Dr. BEACH to be so kind as to acknowledge the reception of it, and to receive the assurance of his high consideration.

The Consul General,
L. DE LA FOREST.

DR. W. BEACH, *Physician, New York.*

Letter from the QUEEN OF PRUSSIA.

MR. W. BEACH, DOCTOR OF MEDICINE,

Sir—Her Majesty, the QUEEN OF PRUSSIA, has received the Medical Book you have forwarded to her Majesty, with your letter of the 2d of November last. Her Majesty has been pleased to accept of it, and to charge me to transmit, to you, with her Majesty's thanks, the here joined GOLD MEDAL, as a sign of her Majesty's acknowledgment.

I am, with esteem, sir, your most obedient servant,

LASSE,
Counsellor of Legation—Secretary to her Majesty.

BERLIN, 19*th January*, 1843.

AMERICAN RECOMMENDATIONS.

From the Courier and Enquirer of July 20th, 1839.

DR BEACH, of this city, author of the "American Practice of Medicine," on reformed principles. some period since, prescribed with success for an Italian lady. Her husband advised him to send his work to the reigning sovereign of his native country, the Grand Duke of Tuscany. He did so, one year ago, but heard no more of it till within a short time passed, when one of the counts of Italy wrote to a gentleman of this City, stating that a present had been sent in return to Dr. Beach, through the consul of Netherlands at Leghorn, by the ship Noble; and which has now arrived, and proves to be a superb gold medal, from the Grand Duke of Tuscany, with his effigy on one side, around which is inscribed the following: LEOPOLD II., D. G. P. I. A. P. R. H. E. T. B., A. A., M. D., E. T. R. V. R. The name of Dr. B. is engraved on the other side. The medal was also accompanied by a letter of thanks for the medical work, and which, no doubt, was reviewed by his physician before the royal favor was given it.

In connection with this it may be also mentioned that one of the most distinguished medical societies of Europe has recently forwarded Dr. Beach a diploma, with the request that he will furnish the society with any new remedies which he may have discovered, speaking at the same time in high commendation of his medical work, the American Practice of Medicine.

Extract of a Letter from MR. JEREMIAH PARSELL, *dated Bound-brook, New-Jersey, Oct. 20th*, 1835.

I send, by Capt. Taylor, sloop Bayard, from this place, a ROCKING-CHAIR. I have made it purposely for you; please accept of it, together with my most grateful feelings toward you and your cause of Medical Reform; and it is my humble wish that the GOD of Heaven, the Great Rewarder, will reward and bless you. I can speak of the success of the practice, as laid down in your work, from my own experience as well as of my neighbours. The Almighty has blessed the means, by following your plain directions.

I have purchased two copies more of your work, for the purpose of lending out among my neighbuors.

New York, May, 1836.

Dr. W. Beach—I congratulate you, dear sir, that the favourable opinion which I have entertained of the merits of your work, and mentioned in your *first edition*, viz., that your diligence, judgment, and erudition would be properly appreciated and rewarded, has now been generally acknowledged in *both* hemispheres, and a *second* edition has been called for.

Your work has not only been appreciated by, and received the highest approbation of, the most distinguished physicians in France and Germany, but of the first medical faculties, medical societies, and of many of the most scientific and literary institutions of Europe, of which you have been honoured with Diplomas as a Corresponding Member. Your work has also been honoured with the *high* benevolence, approbation, and *royal presents* of *their royal majesties*, *King* of *Prussia*, *King* of *England*, *King* of *Saxony*, *King* of *Wurtemburg*, and *King Phillippe*, *King* of the *French*, whose *great and distinguished personages* are *generally* known as *protectors of arts and sciences*, and whose *royal generosity* is extended to all distinguished authors of *any nation* whatever.

Has any physician of *this* country been favoured with the same honours? Can it be *denied* that your work has received the highest approbation which I have mentioned? Notwithstanding your insignificant opponents.

What shall I presage now, my dear sir, to your *second* edition? It is the result of your skill, talents, and industry; and, what is more, this is a production, like aromatic plants and flowers, from which the buzzing bee can take wax and honey, if they choose, without soiling or withering it.

I have not any doubt that as your work is read, the merits of it will be more and more appreciated, *many* lives of our fellow-citizens will be saved, and a *third* edition will certainly be the result of it.

Please to accept my best wishes for your health and prosperity, the assurance of the high regard and esteem in which I remain respectfully, my dear sir, your friend,

J. F. DANIEL LOBSTEIN, M.D.

Of the Medical Faculty of Paris; Member of the Medical Society of the city and county of New York; of many other Medical Societies, Academies, and Scientific Institutions of Europe and America. Member of the Royal and Medical Society of Arts and Sciences of Friesburg, Grand Dukedom of Baden, and Professor of the Theory and Practice of Physic, of Medical Jurisprudence, and of Midwifery in New York; Author of several works on Medical and Literary subjects.

Extract from the Speech of the Hon. Job Haskell *in relation to the Practice of Physic and Surgery, before the Legislature of the state of New York during the Session of* 1834.

Among the most conspicuous of the botanic physicians stands Dr. Beach, of New York, a man of profound learning and research. He, sir, stands the great reformer and father of what is called the American Practice. Here, sir, are three volumes of his works, bearing a title on which every lover of his country can look, and his heart dilate with pleasure—The American Practice, (exhibiting them to the house.) This work has received the approbation of the most distinguished physicians of France; and the author has been honoured by his majesty, the King of Prussia, with a handsome GOLD PRIZE MEDAL for this valuable and interesting work, accompanied with a very flattering letter from his majesty. (Here being called upon, Mr. Haskell exhibited the medal to the house.) The author has also been honoured with a letter from the distinguished and celebrated Professor Von Hufeland, first physician to his majesty, the King of Prussia, in which he has announced to him that his publication has received the highest approbation, and that the Royal Medical College of Berlin had received him unanimously as a member of their society. This work has also received the approbation of Louis Phillippe, King of the French, who awarded to the author a royal present. It has also received the patronage of several eminent professors in Germany. It has also been pronounced a work of great merit by Baron Alibert, one of the most distinguished authors in Europe, first physician of the hospital St. Louis, and first physician to Louis Phillippe, King of the French. I hope its exalted worth will be duly appreciated by this legislature, and the author receive from it the reward he justly merits.

The botanic physicians have other highly meritorious and scientific works upon the different practical branches of medicine: they have a number of schools in different sections of our country, where principles of a reformed or improved system are taught by lectures, recitations, and examinations; and where diplomas are granted to those who are competent to practise: the graduates of these schools are daily dispensing the blessings of medical reform to thousands of their fellow-citizens. Dr. Beach founded the Reformed Medical

Dear Doctor

La Grange August 4th 1833

I Have, with much Gratitude and Pleasure, Received the Highly Valued present of Your Medical book. Be pleased to accept my affectionate Acknowledgments. the Copy intended for the King, with Your letter, Has Been Carefully Sent to His aid de Camp General Bernard with my Request to present them to Him. I am Happy of this opportunity to Have So Very kindly given me to offer the Cordial and Thankful Regards of

Your Sincere friend

Lafayette

Doctr Beach N Y.



SEAL OF LAFAYETTE

FAC SIMILE GENL LAFAYETTE to DR W. BEACH WASHINGTON

College in the city of New York, and is the president: it has been established several years, and some two hundred graduates have received diplomas at this institution. There is a branch of the same in Worthington, Ohio.

Medical Reformation. By Dr. Jesse Torrey.

We have examined, with peculiar gratification, a new medical work, recently published in the city of New York, entitled the "American Practice of Medicine, &c., on Botanical or Vegetable Principles," by W. Beach, M.D., President of the Reformed Medical Society, &c.

Medical remedies, or medical instructions which enable us to prevent or relieve pain and disease, to preserve and prolong health and life, cannot be very precisely estimated in dollars and cents. Such is the value, in our estimation, of Dr. Beach's work. It is a desideratum which we have long been anxious to see, not only for our own accommodation, but for the general benefit of the human family. Dr. Beach not only informs us what to do to relieve diseases, but also what not to do, which last is equal, if not more important to know than the former. We are convinced that this work ought to be in every medical library and school.

He recommends the total abolition of metallic remedies for internal use, and the rare use of blood-letting and surgical operations. The work is written entirely in the English language, and is designed for families and popular use in general, as well as for physicians; and we sincerely advise every family to obtain it as soon as possible, without depriving themselves thereby of indispensable necessaries.

We earnestly recommend every physician in America or elsewhere, acquainted with the English language, to procure the work as soon as possible, and study it carefully; after which we do most ardently hope he will not hesitate to adopt Dr. Beach's system, so far at least as to renounce the use of mercurial, antimonial, and other metallic and vegetable poisons.

The work commences with a set of valuable directions for the prevention of disease, and promoting health and longevity, and is replete throughout with so much of that kind of *essential, necessary* knowledge, which every human being ought to possess, that we should rejoice to see it translated into all the languages in use, and distributed among all nations as soon as possible. If we can obtain the consent of the author, we intend preparing an abstract of the work for the National Library.—*From the National Library.*

Extract of a letter from Dr. W. Capen, *Plymouth, (Mass.,) dated Feb.* 10, 1834

Dear sir—I am now induced to write in consequence of lately perusing your medical work on "American Practice."

I can assure you, without any flattery or pretence, that your work far surpasses any other I have ever seen: notwithstanding I have been educated, and always practised medicine and surgery, according to the "*common*" *mode*. In all my former reading, for *twenty* years, I have never been so fully satisfied with any theory or practice which has met my eye as with yours. I sincerely hope the time has come, or will soon arrive, when the philosophy of medicine in its various branches will undergo a thorough reform, and be regulated upon different principles than it has ever been heretofore. I am very happy to see you, sir, so firmly on the ground of reform. There is evidently much need of a revolution in the medical sciences, as to learning more correctly the genuine principles of the operations of nature. False principles and vague theories are productive of much harm, and are well calculated to keep the mind always in doubt.

It has always been my object to obtain true medical knowledge; and I have perused volume after volume, and have learned many valuable things therefrom; yet there always appeared to be a *void*, which was never filled up in any of my researches, in both ancient and modern writers, so well as when I perused your work. It appears to me that you have rightly opened the medical door, and I wish you every success.

Botetourt County, Virginia, January 26th, 1835.

Dr. W. Beach:

Sir—I take the liberty of addressing a few lines to you upon a subject in which I feel very deeply interested—I mean the reformation which your indefatigable industry and perseverance have brought about in the practice of medicine, for which every philanthropist and friend of humanity will for ever feel grateful to you. The miseries which the orthodox physicians (or mineral practitioners, as they are sometimes called) bring upon the human race by the indiscriminate use of mercury, the lancet, and the knife, are so great that our fellow-citizens begin to dread the orthodox remedies worse than the disease itself.

And why should not sensible and feeling men dread the common practice, when they see their fellow-beings salivated until their bones are in a state of perfect rottenness and exfoliation—to see patients debilitated by blood-letting in fevers and other complaints; and to see the amputating knife resorted to, to cure even simple fractures, bruises, &c. These abuses in the healing art call loudly *to be put down:* the poor cripple, hobbling on his wooden leg, cries, "*put it down;*" the poor wretch who is racked with all the pains of a mercurial rheumatism, cries, "put it down." These abuses are awakening the great mass of the people, who begin to cry, with a voice which makes the old practitioners quake, "put it down;" and it will, it must sink into oblivion before the reformed practice as soon as the great superiority of it is known.

The American Practice of Medicine, for which the world are so much indebted to you, by some means found its way among us: it was perused again and again; another copy was sent for by a friend, who favoured me with an opportunity of perusing it. I had not read long before I recollected what I had suffered from the common practice, (for you must know I was salivated for the cure of bilious remittent fever,) and immediately sent for a copy of the work myself.

JACOB H. KERN,
Near Fin Castle, Va.

W. Beach, M.D., President of the Reformed Medical Society, Founder of the Reformed Medical System, &c.

Extract of a letter from Dr. S. Wright, *of Cleaveland, Ohio, a graduate of the New York Reformed Medical College.*

Dear sir—My success in practice, since I returned, has been even better than I anticipated. I have succeeded in a number of diseases which were considered hopeless. I have had a number of cases of chronic ophthalmia, one of which was truly interesting: it was of two years' standing; six of the last months the patient was totally blind. All his acquaintances, even the physician, (one of the faculty,) doomed him to drag out a wretched existence in darkness and despair. In this hopeless and deplorable condition, the patient came to me as his last resort. I commenced treating him on the reformed system, as laid down in the "American Practice of Medicine." He soon began to recover, and, to the astonishment of all, he now cannot only perform his daily avocation, but can see to read quite well. This, together with my general success, has enlisted many of the first of our citizens in favour of the reformed system. The more I reason and reflect upon this system of practice, comparing it with the old, witnessing its superior efficacy upon the human system, and hearing its applause from the mass of the community, the more I am encouraged, and the more I pride myself in being found among the happy number who advocate its cause and promulgate its practical utility to the world. It must and will prevail, in spite of all the puerile exertions of enemies.

Rochester, N. H., Jan. 10th, 1836.

To the President of the Reformed College of Medicine, New York city:

Dear sir—Although personally unacquainted with you, yet your name and works are familiar to me. The American Practice I have studied, admired, and approved, and am fully of the opinion that your system of practice will eventually become universal. Permit me, sir, to introduce to your friendly notice the bearer of this note, Dr. J. M. Berry, of this village. It was chiefly through my advice that he was induced to quit a lucrative practice, and place himself for a season under your more immediate direction. He is a young man, of unexceptionable moral and religious character, of studious habits, and possessed of talents of a high

order. He has been in practice in this village about one year, and, for a young physician, has met with uncommon success.

Yours affectionately, and with much respect,
A. UPHAM, M.D.

To the Author of the American Practice of Medicine:

Sir—Some time has elapsed since I became acquainted with your *Reformed System of Medical and Surgical Practice;* and I now embrace the opportunity to state, that the theory or principles advanced in your work fully meet my approbation, and which have been amply illustrated and demonstrated by an extensive practice.

I was educated in the old school of medicine, and have, therefore, tested both systems. But a sense of justice constrains me to state, that the reformed method of treating diseases entirely surpasses the other; and I am fully of the opinion, if it is embraced by competent persons, that it will supersede the mineral and depletive course, and become the standard practice of the day.

With my most cordial wishes for its dissemination and final success, I subscribe myself,
Respectfully yours,
ANDREW SHANKLIN, M.D.

Middleton, Hyde Co., N. Carolina.

From the New York Sun, May 28th, 1835.

Royal presents.—Dr. W. Beach, the celebrated botanic physician, has received gold medals from the Kings of Prussia and Saxony, and a rich and splendid collection of plates, representing the battles of Napoleon, from Louis Phillippe, as testimonials of their respect to his talents as the author of "American Practice of Medicine on Vegetable or Botanic Principles." The following is a translation of the letter accompanying the medal received from the King of Saxony:

To Dr. W. Beach:

Sir—The letter of the 10th of January last, by which you presented to his majesty, my august sovereign, the King of Saxony, your work on the American Practice of Medicine, has been recently delivered to its high address, with the work, by Dr. Carus, who at the same time has been able to accompany it with a report infinitely advantageous to it, and to display the distinguished merit which you have acquired by its publication.

His majesty has received it with great pleasure, and has deigned to order me to express to you, sir, his acknowledgment for it; and to transmit to you, as a visible testimony of the value which he attaches to it, the enclosed GOLD MEDAL, bearing the motto, "Virtuti et Ingenio:" *To Virtue and Genius.*

In discharging this grateful commission, I experience on my part a particular satisfaction in being able to add to it the expression of my distinguished consideration.

JOHN MINKWITZ,
The Minister of State and Foreign Affairs of his Majesty, the King of Saxony.
Dresden, Feb. 2d, 1835.

From the New York Advertiser of June 4th, 1836.

Dr. Beach's Book.—We some time since noticed the beautiful medals transmitted from the Kings of France, Prussia, Wurtemburg, and Saxony, to Dr. Beach, in return for his work sent to those distinguished personages. We yesterday saw the medal which the King of England has caused to be sent Dr. Beach: and annexed is the correspondence:

From the Hon. W. MacMichael, *Librarian to his majesty, the* King of England, *to* Dr. W. Beach, *of New York.*

London, Feb. 10th, 1836

Sir—I am instructed to acknowledge the receipt of a copy of your work on "The Ameri-

can Practice of Medicine," presented by you to his majesty, the KING OF ENGLAND; a present which the king duly appreciates; and I am commanded to transmit to you, on the part of his majesty, the accompanying Gold Medal. I have the honour to be, sir,

Your most obedient servant,

W. MACMICHAEL.

King's Librarian.

This medal is of very fine gold, and exceedingly well executed; it bears the effigy or inscription of "King William IV." on one side, and "Queen Adelaide" on the other.

This is the fifth royal present with which Dr. Beach has been honoured, besides letters from the most distinguished physicians of Europe, announcing to him that his medical work has received their highest approbation.

From the New York Daily Advertiser.

Dr. Beach, of this city, has published a new medical work, entitled the "American Practice of Medicine," in three volumes, being a treatise on the character, causes, symptoms, morbid appearances, and treatment of the diseases of men, women, and children of all climates, on vegetable or botanical principles: which work has received the approbation of the most distinguished physicians of France. He has just been honoured by his majesty, KING OF PRUSSIA, (through the minister in this country,) with a handsome GOLD PRIZE MEDAL for his interesting work, accompanied with a flattering letter from his majesty. He has also been honoured with a letter from the distinguished and celebrated PROFESSOR VON HUFELAND, first physician to his majesty, King of Prussia, in which he has announced to him that his publication has received the highest approbation, and that the *Royal Medical College* of Berlin has received him unanimously as a member of their society.

From the New York Sun.

MEDICAL REFORM.—*Extract of a letter from* DR. J. CLARKE, *dated Salem, Mass., Nov. 24th,* 1835.

DR. W. BEACH:

DEAR SIR—I promised, when about leaving New York last spring, to inform you of the state, condition, and prospects of medical reform in this part of the country; and I now, after so long delaying, sit down to give you this information, which I do with much pleasure, for I well know that the spirit of inquiry which is blazing up here will afford satisfaction to the frank and liberal mind which is characteristic of him whom I have the honour to address.

I well know that the flame of benevolence, long ago enkindled in his bosom, which induced him to engage in the good work of effecting a medical reformation, *will brighten* on hearing that the noble cause is prospering here, amid the strong hold of monopolies.

The excitement here on the subject is considerable; so much so, that the faculty of this district, at one of their meetings, discussed the question, whether it would be proper for them to embrace the reformed system? It was decided in the negative, although a number of the young members voted in favour of it. You see, then, that confusion is already apparent in the ranks of our adversaries. The people are in our favour: thousands are ready to desert the poison-mongers. They are waking up in the adjoining towns around us, and we want them supplied with reformers. We want help here. We want combination. I repeat it—we want help all around us. "The *harvest* is great, but the *labourers* are few."

We ought to have a reformed school to furnish this part of the country with physicians; and we fully believe that such a school would flourish well at Boston.

Our legislature, at their last session, struck out the aristocratical part of the medical law, which places us on a level with other physicians. The Thomsonians are divided against themselves. More than half of them have come out in opposition to the arbitrary conduct of Thompson; and, had we a school somewhere in these parts, the greater number of them would join with us.

We are doing all we can for the cause. We intend publishing, in the spring, a medical journal to enlighten the public, and hope to receive aid from your pen.

From the New York Commercial Advertiser of May 23d, 1835.

Compliment to genius and learning.—We have examined this morning two splendid gold medals, recently transmitted by royal personages to an American citizen—Dr. W. Beach, of this city, author of "The American Practice of Medicine." Copies of the work were sent by the author to the Kings of Saxony and Prussia about six months ago; and the attention has been acknowledged by them in autograph letters, accompanied by the medals already referred to. Dr. Beach's work was specially recommended to the King of Saxony by Dr. Carus, and to his majesty of Prussia by Dr. Von Hufeland, who were instructed by the monarchs to report on its merits. The medals, which are rich, heavy, and very handsome, bear the royal effigies, with appropriate inscriptions on the reverse.

Extract from a letter from Dr. Wm. R. Haimer, *Kindalville, Holmes Co., Mississippi,* 1836.

Dr. W. Beach:

Dear Sir—It affords me pleasurable emotions to learn that you have the wreaths of honour you so richly merit as author of the American Practice of Medicine on Botanic Principles. May the Great Ruler of the universe grant that the guardians of health, who have espoused the doctrines of the Paracelsian school, have their judgments governed by stubborn facts, in preference to the principles and sophistries so eloquently harangued by the deluded votaries of inconclusive theories.

Nineteen years' experience in the practice of medicine has convinced me of the unparalleled superiority of vegetable over mineral practice. Where is the medical philosopher who can illustrate the modus operandi of mercury? True, a little, and but little, can be said on the subject; nothing but a hazardous uncertainty awaits the hand that regurgitates the human stomach with such a ponderous *poison*. Where is the learned anatomist who has a conscience that can reconcile it to his feelings to administer such messengers of death? Some there are, but deluded they must be.

I am desirous of a correspondence with you, when you can get a moment's leisure; and I want, and must have, your treatise. Several of my friends have desired me to request you to send on one hundred copies; if you are willing to do so, I am willing to become your agent.

Extract from a letter dated Louisville, Oct. 16th, 1835.

Sir—On my journey west I have had occasion to stop at different places, and have become acquainted with a large number of physicians, and, on speaking of your work, a majority have expressed a wish to obtain copies. My object in writing is, to inquire if it would not be advisable to appoint agents for the western states.

I feel confident, from my knowledge of the work, and the faculty in this section of the country, that an agent would find no difficulty in disposing of any number of copies: and, as I feel an interest in the advancement of the principles laid down in your work, I shall take much pride in being selected as an organ for this object.

LEWIS COLLINS.

Extract from a letter from John H. Smith, *dated Athens,* 1835.

Dr. W. Beach:

Sir—I have received your work which I sent for, "*The American Practice of Medicine,*" and never have I perused a medical work with so much pleasure and satisfaction: I consider it superior to any medical work that I have ever seen. There is no doubt but there are herbs and plants of such variety and of such medical virtues, if rightly administered or applied, as will cure every disease to which the human body is subject.

Doctor Smith, *of Boston, has given the following recommendation*

A concise description of Beach's Medical Work.—It exposes the worst of all the bad, (of the old or modern practice,) and contains the best of all the good, (of every other kind of practice.)

From the New York Commercial Advertiser of June 14th, 1836.

A Royal Present.—Dr. Beach, of this city, author of "*The American Practice of Medicine.*" has been singularly fortunate in winning golden opinions from the crowned heads. He has received no less than five gold medals from as many European kings, in testimony of the high estimate they entertain of his medical abilities, and of the excellence of his volume. The latest is from his most gracious majesty, William the IV. of England, to whom the doctor had transmitted a copy of his book; by the diligent study of which, his majesty expects, no doubt, to attain a greater longevity than even his father. The medal is of fine gold, and bears on one side the name and title of King William, and of Queen Adelaide on the other.

Extract from a letter from Dr. F. Hersey, (*formerly Surgeon in the United States Army.*)

We congratulate the friends of botanical medicine, on the publication of a splendid edition of the botanical works of this distinguished writer. His talents, natural and acquired, have admirably qualified him for the arduous enterprise in which he is engaged: what he has already achieved by the prowess of his classical pen, and laborious efforts in the cause, have secured him an eminent niche in the temple of fame. Posterity shall tell the story of his worth when the ensigns of opposition shall be driven from the field, and the administrators of quicksilver, calomel, and corrosive sublimate (as medicine) shall live only on the page of history, sad monuments of the folly of the day in which they used with impunity these instruments of death, under the ludicrous impression of saving the lives; such means are so notoriously calculated to destroy.—*Independent Botanic Register.*

Extract from a letter from Dr. Gerrish, *of Boston, to the Author*

I pursue your beautiful, and almost perfect, system of practice.

From the Botanic Medical Reformer, conducted by Dr. Thomas Cooke.

Our readers will find on the cover of the present number a Prospectus of a new and abridged edition of Dr. Beach's work: we hope it will be well patronized, as it is one of the best *practical* medical books ever published. In proof of its superiority, all the former opposers of it are now copying after it.

Extract from a letter from Dr. G. Waterman, *dated Cranston, R. I., Feb. 25th,* 1842.

I know not how to express my gratitude for the *great* benefit I have derived from your invaluable writings. The first 220 pages of the American Practice of Medicine, vol. i., are worth more than all the books on *dietetics* ever before published; and, were it in my power, the head of every family should have free access to it.

It seems to me sometimes that the greater the humbug the more eagerly the world will pursue it, while correct principles and true science are scarcely noticed.

Certainly none but a *truly* benevolent mind could ever have placed a work so valuable as yours before the world. It has revealed the true art of healing, both to the common people as well as the profession. But you need no approbation or applause from me; and I would to heaven that I could do more to promote your cause. I have introduced your work to several of my friends, who have placed it at the head of their libraries.

Since the above was written I have received another communication from the same phy-

sician. He remarks: "I rejoice greatly that an abridgment of your large work is forthcoming from your pen; and I doubt not but that the demand for it will more than meet your expectation. I see nothing but the people's ignorance of what your work *really* is, to prevent its introduction into every family. A gentleman to whom I recommended your work last spring, informed me, but a few days since, that it had saved him more than *one hundred* dollars since that time, a few months."

New York, Feb. 5th, 1842.

It is now nearly twenty years since Dr. Beach first commenced his attendance in our family, during which time I have had ample opportunity of witnessing and testing his "*Reformed Practice of Medicine*;" and I feel it a duty I owe society to state, that I have seen the salutary effects of his practice, not only in my own family, but also in a variety of cases among others; some of which were obstinate and critical, and had baffled the skill of the most distinguished physicians of the "old school." I therefore have no hesitation in stating that I believe his system of medical and surgical treatment vastly superior to all others, and that it will eventually triumph, and become the prevailing practice. I therefore most cheerfully recommend it, and his medical work, to all classes of the community.

LEMUEL RICHARDSON.

I hereby acquiesce in the above declarations respecting Dr. Beach's Reformed Practice of Medicine, from actual experience in my family; the doctor having frequently been called upon, and administered medicine with the best success, within the last twenty years in my family.

DANIEL LA TOURRETTE,
Formerly one of the Judges of the Court of Common Pleas,
and Justice of the Peace for Somerset County, New Jersey.

Copy of a letter from Elisha Morrill, Esq., *late Judge of one of the Courts of Law in the city of New York.*

New York, February 11th, 1842.

Doctor Wooster Beach:

Dear sir—I have read, and heard with great interest, the reformation which your indefatigable industry and perseverance have brought about in the practice of medicine, by your medical work, entitled "The American Practice" on botanical principles.

You had to meet the combined prejudices of the old system of medical and surgical practice, which must have been an Herculean task; but genius and a just cause will meet the plaudito "well-done good and faithful servant:" great will be your reward, for your study has been to preserve the health and lives of the human family. I have known your practice many years; and that you may receive the honour and pecuniary compensation commensurate with your expectation, is the sincere wish of your friend and humble servant,

ELISHA MORRILL.

P. S. Please send me one of your books.

Extract from a letter from Dr. Thomas Richardson, *dated Donegald, Westmoreland Co., Pa.*

January 10th, 1840.

The opinion of your "American Practice" which distinguished *foreigners*, as well as *Americans*, have formed and publicly expressed, is truly gratifying to my feelings.

When Baron Alibert says that your work is a "masterpiece of medical analysis and medical experience;" when Von Hufeland, the most celebrated physician in Europe, after examining your work, presents you with a diploma as "Corresponding Member of the Medical and Surgical Society of Berlin;" when Hasselbach acknowledges your work valuable and excellent; and when Dr. Lobstien, whose Semiology of the eye I have read, says of your work, "It is the result of your skill, talents, and industry; and is a production, like aromatic plants and flowers, from which the buzzing bee can take wax and honey, if he choose, without soiling or withering it." I say, when such expressions are made relative to you and your work, you might well exclaim as you have done · ·Thanks to the autho

of all good for the origin, success, and blessing of the important cause of medical reform." And I would say, in the words of the old Roman, "Magnum est veritas, et prevalebit." I humbly trust, sir, that you will reap the reward your distinguished talents, benevolence, and indefatigable industry so richly merit; for merit, sir, will be rewarded.

Extract from a letter from Dr. George Shecut, *dated Georgetown, S. C.*

July 10th, 1839.

I had long indulged the hope that some master spirit would spring up from our botanic fraternity, one capable of collecting, arranging, and condensing the abundant materials which have been so long accumulating, and thus forming them into a system of medicine more simple and consistent than the world has yet seen, and supply a desideratum medicine that has long been wanted. This Herculean task, I am happy to learn, you have undertaken: and, if I may judge from the specimen of your abilities as displayed in the first edition of your truly scientific work, I think I may say, without incurring the imputation of flattery, that you have fully demonstrated the practicability of this great work; as I honestly believe you have done more toward the advancement of true medical knowledge than any one writer, ancient or modern, I have ever met with.

Extract from a letter from that distinguished Author and Professor, C. C. Rafinesque, *Author of the Medical Flora, and numerous other works, dated Philadelphia, Jan. 6th,* 1840.

I must now state again, that I think highly of your medical work: I belong, like yourself, to the Reformed School of Medicine, and agree with you much better than with the Thomsonian, Homœpathy, and Botanical Empirics. Your system is a good one, if not perfect: it is better, at any rate, than most of the fashionable systems, Galenian, Brunonian, or mineral. Your system of surgery appears benign and safe, and much better than the old butchering system.

Extract from a letter from Dr. A. Davis *to the Author, dated Danville, Livingston Co., N. Y.*

July 20th, 1842.

Sir—If you could send fifteen or twenty good practitioners of medicine on reformed principles, they could find location in this section of the country.

New York, August, 1482.

Since the reception of the preceding recommendations, to show still farther the estimation in which the practice is held in Europe, the author has to acknowledge the reception of diplomas entitling him to membership in three more medical societies.

1st. A diploma from the Medical and Physiological Society of *Wetterau*, Germany

2d. A diploma from the Medical Society of *Leipsic*, Saxony.

3d. Also one from the Medical Society of *Bamberg*, Bavaria.

To show farther the estimation in which the practice is held by those acquainted with it, I subjoin an extract from the will of William Turpin, a distinguished and wealthy person, and a strong friend of a botanical system of practice.

"I GIVE AND BEQUEATH TO DR. W. BEACH, THE MEDICAL REFORMER, HIS HEIRS AND ASSIGNS FOR EVER, FIVE HUNDRED DOLLARS."

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PART FIRST.

MEANS OF PREVENTING DISEASE, AND PROMOTING HEALTH AND LONGEVITY

"IT IS BETTER TO PREVENT THAN TO CURE."

"Nor is it left *arbitrary*, at the will and pleasure of every man, to do as he *list*; after the dictates of a depraved humour and extravagant fancy, to live at what rate he pleaseth; but every one is bound to observe the *Injunctions* and *Law of Nature*, upon the penalty of forfeiting their *health*, *strength*, and *liberty* —the true and long enjoyment of themselves." MAINWARINGE

CHAPTER I.

In the commencement of this work I am desirous of calling the attention of the reader, and particularly of the invalid, to the best means of preventing disease, as well as of recovering health when lost or impaired; and I wish to impress upon their minds that this consists, principally, in a *well-regulated diet* and regimen. It is very natural, and very customary, for us to indulge our propensities and appetites until some derangement of our digestive functions is the consequence; and then, instead of avoiding the exciting cause of the evil, we resort to medicine for a remedy, which, at best, is a poor substitute. I have heard of a person subject to dyspepsia, who was so fond of indulging his appetite, that he *would have* a good dinner; and, after eating it, he was in the habit of running his finger down his throat and vomiting it up. This excess, in a greater or less degree, is indulged in by thousands; and they would rather suffer the penalty of gluttony, than to practice abstinence or temperance. They will eat and drink whatever their appetites crave; become diseased; then torture their stomachs with drugs or nostrums till their lives are rendered wretched indeed.

I wish to see a reform in this respect, as well as in the habitual use of ardent spirits; as the one is almost as destructive to health as the other. Says Dr. Mott, in one of his lectures, "All who have abused their stomachs, will assuredly be brought to an account for it sooner or later. I am not sure," says he, "but more disease and suffering result from intemperance in eating, than intemperance in drinking. Hence there is as much need of a *temperance eating*, as a *temperance drinking*, society. From whatever cause the digestive organs become deranged, the system will exhibit disease in some form or another," although it may be years before the disease develoves. or shows itself.

"Happy would it often be," says a writer, "for suffering man, could he see beforehand the punishment which his repeated departure from the laws of physiology or nature is sure to bring on him. But, as in the great ma

jority of instances, the breach of the law is limited in extent, and becomes serious by the frequency of its repetition, rather than by a single act; so is the punishment gradual in its infliction, and slow in manifesting its accumulated effect; and this very gradation, and the distance of time at which the full effect is produced, are the reasons why man in his ignorance so often fails to trace the connexion between his conduct in life and his broken health.

"To the intemperate in eating and drinking the day of reckoning is merely delayed, and there is habitually present a state of repletion which clogs the bodily functions, and may lead to sudden death by some acute disease when the individual is apparently in the highest health."

How many instances might be mentioned to prove this fact. A person who resides the next door to me, is now very low from the same causes. He had been a butcher by trade; had lived very high, and taken very little exercise, which caused great plethora. He was suddenly attacked with a severe disease, and for some days his life was despaired of; I anticipated a similar result from his diet and mode of living. Another acquaintance of mine was lately brought to the same condition by indulgence in eating and drinking. One day he commenced working in his garden, and, on stooping, the blood rushed to the head, occasioning fatal apoplexy. How frequently do we hear of similar cases from similar causes. Another case occurs to me. A person asked my advice, some time ago, in relation to symptoms arising from improper regimen. I prescribed suitable diet, &c. Afterward he informed me that he began to follow my directions; but his wife dissuaded him from it. She prepared so many good things for him to eat that he could not abstain from them. He continued to violate the laws of nature till he was seized with a fit of palsy or apoplexy, which renders his recovery doubtful. Volumes might be filled with similar cases.

Says a late writer, "Is it not better, by a rational exercise of judgment, to preserve health when we have it, than first to lose it, then pay the penalty in suffering and danger, as an indispensable preliminary to its subsequent restoration?" It is known, that as soon as a person applies to a judicious physician for advice he is put under a proper course of regimen to restore him to health. Now it must be evident, that the same course which is calculated to regain health is likewise calculated to prevent disease. To accomplish an object so desirable and important as to prevent disease and preserve health, I have laid down rules, in the following pages, founded upon the laws of physiology, and which, if strictly adhered to, will be the means, not only of the recovery, but likewise the preservation of health, and often without the use of medicine.

"I have seen," says Graham, "hundreds of miserable dyspeptics, who had suffered almost everything for years; scores of those apparently consumptive; many afflicted for years with fits and spasmodic affections, or asthma, or sick headache; in short, I have seen nearly every form of chronic disease, after resisting almost every kind of medical treatment for months and years, yield, in a very short time, to a correct diet and a well-regulated general regimen."

"It is not easily to be credited," says Cheyne, "what wonderful effects, even in the most desperate and universally-condemned-to-death diseases, I have seen produced by an exclusively milk and grain diet; and even these, the thinnest and least in quantity, the person could be tolerably easy under from the pain of hunger, and continued for one, two, or more years. Epilepsy totally cured; universal lepers made clean; stone and gravel laid quiet; cancers healed or palliated; ulcerated lungs made sound; and schirrous

livers made pervious; and all accomplished by a total, obstinate, and continued milk and grain or coarse flour diet. I firmly believe, and am as much convinced as I am of any natural effect, that water drinking only, with a diet of milk, grain, and fruit, duly continued and prudently managed, with proper evacuations, air, and exercise, are the most infallible antidotes for all obstinate diseases of body and mind. This regimen I have for the last twenty years pursued."

At the close of these remarks on the subject of health, I intend to add, if space permit, by way of illustration, some cases which have been cured by diet, bathing, exercise, &c. This ought to be an encouragement to the sick and the invalid, as well as others, to follow the same course. I therefore beg the attention of the reader to this important subject, particularly to the article headed, BILL OF FARE FOR INVALIDS AND OTHERS; and if they wish to have a sound mind in a sound body, not only to read, but likewise to practise, the rules there laid down, as well as those in other parts of this treatise on the same subject. I also desire the reader to peruse the rules for the preservation of health, and the promotion of longevity, by Sir Richard Jebb.

Says a late excellent writer, "Three-fourths of the vice that entails wretchedness on the human family, is physiological vice; that is, that which consists in the depraved indulgence of the *three appetites;* or in the moral feelings brought immediately into action by these means."

I remark farther in detail, first on

TEMPERANCE, ABSTINENCE, DIET, ETC.

As perfect health is the greatest earthly blessing we can enjoy, without which all other blessings are of little consequence, I deem it of the first importance to point out the means of promoting it; by paying proper attention to which, persons who are born with, and enjoy a good constitution, will attain a healthful and long life, and even those who are delicate and tender will arrive at an advanced age. These means hold forth the doctrine, that regularity and temperance in all things are highly conducive to health and happiness; and, on the contrary, that irregularity and intemperance bring their votaries to an untimely grave.

When the various functions of the body are performed with ease, and suffer no interruption, the body is said to be in health; in a contrary case it is diseased. Considering the many dangers to which man is exposed, it is surprising that he should remain in health so long; and our astonishment increases when we reflect how often he escapes the dangers prepared by his own hand. But parental nature frequently repairs the injury in a manner unknown to us. To set down supinely with a notion, that if the Majesty of Heaven wills us to die, we certainly shall, in the use of means to prolong life; and if He wills the contrary, we shall live, in the neglect of those means, is a conduct unscriptural and absurd. Disease may be considered the consequence of the moral, or rather immoral, conduct of man, in deviating from a line prescribed by his Maker.

The powers of life may be compared to the oil in a lamp: in time they will be exhausted; they may be supported or diminished; when exhausted, death invariably closes the drama. Death from mere old age may be compared to the extinction of the light when the oil is all consumed; and death from disease, to the blowing out of the light when the oil is not all consumed, and might have burned longer. There are laws in nature, by which man may arrive to maturity, to the summit of health and vigour; and there are

laws, by which his powers of life are lessened and finally exhausted. These are the "bounds which he cannot pass."

In order to extend the common term of life, mankind must be persuaded to return to that primeval state of nature, from which history furnishes us almost incredible instances of longevity. The antideluvians enjoyed an uninterrupted state of health; their manner of living and vegetable diet was simple and not injurious. They had little need to attend to their health, as the seeds of disease were little scattered in such a state. We have deserted from the simple mode of life which prevailed in the primitive ages. We have acquired our improved state of mental culture, by sacrificing to it much of our bodily welfare. We are less accustomed to consult what nature requires, with respect to diet, mode of life, clothing, &c., than to follow fashions, customs, and our own disordered inclinations.

The desire of long life is inherent in all human nature; and the possibility of prolonging it was never doubted by the orientals. The most important circumstances which favour the attainment of long life are,

Temperance, Abstinence, and Diet.

"Temperance is a kind of regimen," says Dr. Thomas, "under which every man may put himself without interruption to business, expense of money, or loss of time; and may be practised by all ranks and conditions, at any season, or in any place. If exercise assists in throwing off superfluities from the body, temperance prevents them; if exercise clears the vessels, temperance neither satiates nor overstrains them; if exercise promotes a free circulation of the blood, temperance gives nature full play, and enables her to exert herself in all her force. Cheerfulness of temper and vigour of body are the usual results of temperance; on the contrary, depression of spirits, a shattered constitution, disease, and often poverty, are the consequences of a continued course of intemperance.

It is much easier to preserve health than to recover it when impaired, and to prevent diseases than to cure them. Toward the first, the means are generally in our own power, little else being required than strict temperance in all things; but, toward the latter, the means are uncertain and perplexed, and for the knowledge of them the greatest portion of mankind must apply to others of whose skill and judgment they are in a great measure ignorant.

The man who wishes to live long, and be healthy, must submit to live regularly and be temperate in his habits; since he cannot otherwise expect to enjoy the fruits of such a life, nor be agreeable to himself or useful, in all probability, to his friends; neither can he relish the bounties of Divine Providence, nor acquit himself of his duties to God.

Some inconsiderate and sensual persons affirm, indeed, that a long life is no blessing, and that the state of a man who has passed his seventy-fifth year cannot really be called life, but death; but we daily see, in our public papers instances recorded of persons having attained the age of ninety or a hundred enjoying most of their faculties; and whoever will read the tract of Sir Thomas Barnard on the comforts of old age, as also the life of Lewis Cornaro, the Venetian, will perceive that this is a mistaken notion. At the age of one hundred years he was, by temperance in all his pursuits and indulgences, and particularly in his diet, capable of mounting his horse without any assistance, or advantage of situation, and could not only ascend a flight of stairs with ease, but climb up a hill on foot with the greatest ease; moreover, he was gay, pleasant, and good humoured; free from perturbation of

mind and every disagreeable thought. He did not find life burdensome, but, on the contrary, spent every hour, we are informed by him, with the greatest delight and pleasure; sometimes in conversing with men of his acquaintance, valuable for their good sense, manners, and letters; sometimes in reading the works of favourite authors, and occasionally in writing.

He was extraordinary sober, and dieted himself with so much wisdom and precaution, that, finding his natural heat decaying by degrees in his old age, he also diminished his diet by degrees, so far as to stint himself to a very trifling meal indeed. By this means he preserved his health, and was also vigorous to the age of a hundred years; his mind did not decay; he never required the assistance of spectacles; neither did he lose his hearing; and that which is no less true than difficult to believe is, that he preserved his voice so clear and harmonious, that at the end of his life he sung with as much strength and delight as he did at the age of twenty-five years.

"O, Temperance," says Sir William Temple, "thou physician of the soul as well as the body, the best guardian of youth and support of old age, the tutelar goddess of health and universal medicine of life, that clears the head and cleanses the blood, that eases the stomach and purges the bowels, that strengthens the nerves, enlightens the eyes, and comforts the heart; in a word, that secures and perfects digestion, and thereby avoids the fumes and winds to which we owe the colic and spleen, those crudities and sharp humours that feed the scurvy and gout, and those slimy dregs and humours of which the gravel and stone are formed within us; diseases to which mankind are exposed rather by the viciousness than frailty of our nature, and by which we often condemn ourselves to greater torments and miseries of life than perhaps have yet been invented by anger and revenge, or afflicted by the greatest tyrants upon the worst of men. And yet so little notion have the generality of mankind of the virtue of temperance, that life with them is nearly one continued scene of intemperance.

To what cause, so much as to intemperance, are owing faded youth and premature old age, an enervated body, and an enfeebled mind, together with all that long train of diseases which the indulgence of appetite and sense have introduced into the world. Health, cheerfulness, and vigour are well known to be the offspring of temperance. The man of moderation culls the flowers of every allowable gratification without dwelling upon it until the flavour be lost: he tastes the sweets of every pleasure without pursuing it till the bitter dregs rise; whereas the man of the opposite character dips so deep as to stir up an impure and noxious sediment, which lies at the bottom of the cup.

How quickly does the immoderate pursuit of carnal pleasures or the abuse of intoxicating liquors ruin the best constitutions! Indeed these vices generally go hand in hand. Hence it is that we so often behold the votaries of Bacchus and Venus, even before they have arrived at the prime of life, worn out with diseases, and hastening with swift pace to an untimely grave. Did men reflect on the painful diseases and premature deaths which are daily occasioned by intemperance, it would be sufficient to make them shrink back with horror from the indulgence even of their darling pleasures.

The innocent too often feel the direful effects of it. How many wretched orphans are to be seen embracing dung-hills, whose parents, regardless of the future, spent in riot and debauch what might have served to bring up their offspring in a decent manner! How often do we behold the miserable mother, with her helpless infants, pining in want, while the cruel father is indulging his insatiate appetites!

It is too true, that the major part of mankind are intemperate and sensual,

and they love to gratify their appetites and commit excess; and seeing that they cannot avoid being greatly injured by their excesses, they, by way of apologizing for their conduct, say that it is better to live ten years less, and enjoy themselves, not properly considering of what importance are ten years more of life, especially a healthy life, and at a maturer age, when men become sensible of their progress in knowledge and virtue, which they cannot obtain to any degree of perfection before this period.

A life of irregularity and intemperance has the certain effect to destroy persons of the best constitution, even in the prime of life; while, on the other hand, one of regularity and temperance will frequently preserve men for a length of time, who are of a very delicate or bad constitution, and far gone in years. Whoever will read the life of Lewis Cornaro must be convinced of this. This Venetian had been addicted to a life of intemperance up to his fortieth year, the consequence of which was, that a heavy train of infirmities had invaded him, and made great inroads on his constitution; and after having to no purpose tried every means of relief that art and medicine admitted of, he at last, by the advice of his physicians, entered on a life of the strictest temperance, by which he regained his health, and lived to a very advanced age. Daily observation has, indeed, fully convinced me that an elderly man, even of a delicate constitution, who leads a regular and sober life, has a better chance of a long one, than a young man of the best constitution, who invariably leads a disorderly one.

That irregularities of diet, repletion, and unwholesome food are the origin of many diseases, cannot admit of a doubt; and that the preservation of health much depends on a proper regimen, is equally obvious.

When it is considered that many serious disorders are entirely occasioned by an improper diet, and that in almost every complaint the due direction of diet is perhaps of equal importance with the prescription of medicines, it is highly blameable to neglect this powerful resource. To delicate women and sickly persons, to pregnant women and those who are nurses, and to young children, restrictions on diet are indispensably necessary.

It has wisely been observed by Hippocrates, (who has been called the father of medicine,) that, if a man eats sparingly and drinks little, he is nearly certain of bringing no disease upon himself, and that a moderate supply of food nourishes the body best. The quantity of food which nature really requires for her support is small, and he that lives temperately, and eats and drinks moderately at each meal, stands fair to enjoy sprightliness, vivacity, and freedom of spirits. Bodies that are governed by temperance and regularity are rarely hurt by melancholy, or any other affection of the mind. To have a clear head, we must have a clean stomach; for this is the grand reservoir in which the food is first deposited, and thence its nutritive power is distributed throughout all parts of the body.

An error into which many people fall is that of eating too much at once. If the stomach be filled with a greater quantity of food than it can easily bear, or what is proper, its coats are stretched beyond their natural tone, and rendered incapable of performing its digestive powers; the food being longer retained than by the laws of the circulation it ought to be, and undergoing a disorderly fermentation, gives rise to crudities, sour eructations, flatulence, listliness, headache, and stupour; for the stomach having an intimate connexion with the brain and nervous system by sympathy, whenever one of them is disordered, the other seldom fails of partaking in the calamity.

Who never fasts, no banquet e'er enjoys;
Who never toils or watches, never sleeps

He that consults his health must check his appetite, and invariably rise from table with the ability and disposition to eat and drink still more than he has done. He should also diligently apply himself to discover what kinds of food are best suited to him; for the proverb, that whatever pleases the palate must agree with the stomach and nourish the body, or that which is palatable must be wholesome and nourishing, is founded in error. The best rule will be, not to take anything but in such quantity as the stomach can easily digest, and to make use of only those things which, from observation and experience, the person has found to agree with him. The quality as well as quantity is, therefore, to be taken into consideration. By repeated trials and experience any man may acquire a perfect knowledge of his constitution, and ascertain not only what food, but likewise the liquor, that agrees best with his stomach; and, in regulating his diet, he may place a safer reliance on his own judgment than he can on the opinion of his medical attendant, be he ever so skilful.

An attention to diet and temperance in all other respects is not only necessary for the preservation of health, but is likewise of great importance in the cure of diseases; and many of them, indeed, may be cured by a suitable diet alone. Avoid, therefore, any excess at table, or the partaking of a great variety of dishes; for intemperance not only renders the understanding cloudy and injures the constitution, but likewise degrades the soul. Do not confine temperance, however, to merely eating and drinking, but let it be extended to the moderating every other appetite, inclination, or passion.

Abstinence is the best cure for any excess which has been committed in eating or drinking. In paying a strict attention to temperance, we are to take care at the same time not to carry it so far as to border on abstinence of an excessive nature; for this is by no means conducive to health, but the direct contrary, because a copious supply of fresh and wholesome food is requisite for the support of the body, and is peculiarly necessary for those who labour hard.

Dr. Cheyne imputes most of the chronical diseases, the infirmities of old age and short lives, to repletion or intemperance; and that they may be either prevented or cured by abstinence.

But if abstinence is not sufficient for the cure of diseases, yet it greatly assists the operation of medicines, and is a preventive against a multitude of dangerous disorders. Several writers relate extraordinary cures performed by it, and many instances of its extending the term of human life. It is, indeed, surprising to what a degree of age the primitive Christians of the East, who retired from persecution into the deserts of Arabia and Egypt, lived healthful and cheerful, on a very little food. Cassian assures us, that the common allowance for twenty-four hours was only twelve ounces of bread and mere water; and adds, that on this spare diet Arsenius, tutor to the Emperor Arcadius, lived a hundred and twenty years, and many others to nearly the same age. A man of the name of Laurence preserved his life to a hundred and forty years, by temperance and labour. And Spotswood mentions one man who attained the age of one hundred and seventy-five years, by means of abstinence.

It appears from the registers of the society of Friends, that one-half of those born among them live to the age of forty-seven years; whereas, says Dr. Price, that of the general population of London one-half live only two and three-quarter years. The number of Friends who live to the age of seventy, compared with the general population of London, is as four to one. This superior longevity is properly attributable to the temperate habits of the

society generally; and it may be added that, from the same cause, they enjoy a greater portion of health, and exemption from the commonly allotted ills of life. A still greater benefit flowing from the habitual temperance of this society is, the almost total absence of pauperism among them. Although they relieve the public from all charge on account of their poor, it is believed that they are not subjected to any heavy burden thereby—their habits of temperance and economy operating to keep nearly all above want.

Food which is simple, provided it be easy of digestion, and affords a due quantity of nourishment, is far preferable to that which is compounded by the rules of art and cookery, and rendered more savoury by an addition of aromatic spices. Eating a variety of high-seasoned viands, and partaking of many dishes, is very unwholesome; for the stomach thereby becomes overloaded with an heterogeneous mass, exceedingly pernicious in its effects. Moreover, we are induced to exceed the bounds which nature has prescribed for us, and by such means the stomach labours under all the direful effects of repletion. To eat moderately of one dish is certainly most wholesome. Simplicity of food requires no physical alteratives, and due exercise, with temperance, prove the best cathartics.

The new school of France seems to be well aware of this truth, and has retired back to the simplicity of nature, to those days of primitive manners, when the dietetic school spread its doctrines abroad for the relief of man. If you ask the French professors what is the best mode of curing disease, they will answer you, like the Greek orator, when it was inquired, what was the first essential in eloquence? he answered, *action;* and what the second? *action;* and what the third? *action.* So would the physicians of Paris, if it were inquired what was the first requisite in curing disease; they would answer, *diet;* and the second? *diet;* and the third? *diet.*

Wonderful cures, says Dr. Mease, have been effected by simplicity of diet. The father of Professor Cooper, of South Carolina, was cured, in London, of an asthma, to which he had been long subject, by an exclusive diet of boiled carrots for two weeks, as recommended by John Wesley, in his "Primitive Physic." During this time he drank little water. He remained well for twelve years; but, having returned to his former generous living, he was again attacked. I have heard of another cure by the same diet.

The disease called "broken wind," in horses, which is no more than the asthma in the human species, is cured in England by an exclusive diet of the same vegetable.

A lady in Philadelphia was cured of a most severe rheumatism by a diet of milk solely; and Dr. Cheyne records, that Dr. Taylor, a contemporary with himself, was cured of epilepsy by the same diet.—English Malady, p. 255. Our books of medicine record many other cures effected by rigorous simplicity of diet.

In eating our food, due care should be taken to chew, or masticate, it sufficiently, previous to its being swallowed: this is a point deserving of a very strict attention, and may be deemed the first process of digestion; for, without the solid parts of our food being well triturated in the mouth, and at the same time incorporated with a due proportion of the salivary secretion, it cannot be converted into good chyle or healthy nutriment.

The simplicity of aliments and temperance are, in fact, the abundant sources of health and life. It is sufficient, says Plutarch, to have the taste of true pleasure to be temperate. Regimen has the greatest influence, not only upon the physical, but also upon the mental part of man.

The monks of La Trappe make it a part of their religion to eat only once a day, and nothing but vegetable food—unless when sick, in which case milk is allowed; but it is long before they become reconciled to the restriction.

CHAPTER II.

FOOD AND DRINK.

"Man should content himself with the produce of the fields, gardens, and dairy."

ANIMAL FOOD.

It appears very evident that man, in his primeval state of simplicity, never ate any *animal food* whatever. Previous to his transgression, he was not permitted to kill any animals nor partake of any meat, as appears by the command of his Maker, recorded in the Bible. Vegetables alone seem to have been his only food. From this fact we may infer, that vegetable is more congenial to the system than animal food. We may infer this also from the effects which follow the long-continued use of meat. Sailors who use it on long voyages are subject to the scurvy, which often proves fatal, when a recurrence to vegetables immediately removes the disease. A vast number of other complaints are unquestionably produced by animal food. The evil consequences arising from it are in part owing to the quantities of oil or grease it contains; by reason of which the digestion is disordered, the bile vitiated, the blood corrupted, and cutaneous and other diseases induced.

Injurious effects are very frequently immediately felt after eating a meal of high-seasoned meats; such as oppression at the stomach, lethargy, and subsequently, if persisted in, dyspepsia, and other complaints. Animal food, then, may in general be considered hurtful, and requires a very strong and healthy stomach to digest it; and it ought, therefore, if used at all, to be taken very sparingly, and not more than once a day. Besides, it is better taken cold than warm. When animal food and wine have been received into the stomach, no sooner is the digestive process begun, even before any portion is introduced into the circulating fluid, than the action of the heart is increased and the pulse is quickened; but the same effect is not observed from vegetables.

Animal food, says Dr. Parish, is too highly stimulant. The springs of life are urged on too fast, and disease necessarily follows, (such as a bilious, plethoric, and inflammatory state of the system.) The celebrated anatomist, Alex Munroe, states that animal food produces the hot alkalescent scurvy, a fierce and savage temper, a peculiar feature, and leprosy, with a corruption of all the juices, which is only to be cured by a change of diet.

In travelling, a few years ago, in the state of Ohio, I was forcibly struck with the dark and unnatural colour of the inhabitants. I observed it to a lady passenger, who stated that the peculiar colour of the skin was caused by eating so much meat, particularly pork.

The blood of the person who eats animal food is richer, thicker, and more stimulating, and produces a much greater excitement of the different organs,

than the blood of those fed on vegetables. Flesh diet, therefore, gives a greater tendency to inflammatory and other complaints than a vegetable diet

Among other ill effects of animal food is a temporary fever after eating it, called, by the old medical writers, "the fever of digestion." No such effects follow the use of vegetable food.

Dr. Dick considers it incompatible with a state of innocence, to take the life of any sensitive being and feed on its flesh; and that, consequently, no such grant was given to Adam in Paradise, or to the antediluvians. He considered it a grant only fitted to the degraded state of man after the flood. This accords with the opinion of another writer, I think Dr. Cheyne; I am almost convinced, says he, that animal food was never intended, but only *permitted* as a curse or punishment, and a cure for a malady, being adapted to the corrupt state of man. 1st, To let him feel and experience the natural and necessary effects of his own lusts by painful diseases. 2d, To shorten the duration of his natural life, that sin and misery might not increase infinitely.

VEGETABLE FOOD.

Vegetable food is much lighter, more easily digested, and much less inclined to putrify than animal food. Besides, from the natural stimulus which it possesses, the bile is rendered more healthy, by which the regular peristaltic motion of the bowels is kept up, and costiveness, the source of so many evils, obviated. This is easily proved, for every one knows that the use of certain fruits, such as apples, raisins, tamarinds, peaches, prunes, pears, plumbs, whortleberries, &c., besides other articles which will be hereafter mentioned, keep the bowels in a constant soluble state.

To show still farther the influence of vegetable food in promoting a healthy state of the system, we need only advert to the inhabitants of those countries who use it exclusively. For health and vigour of constitution, they are noted. Observe, for instance, the Irish, who live upon potatoes and buttermilk, how muscular and athletic they are, and how their countenances glow with genuine health. They can endure more hardships and more privations than any other people, and yet subsist upon this vegetable from infancy to old age. Our forefathers, the hardy sons of New England, enjoyed uninterrupted health and lived to a good old age, by adhering to a simple diet, such as bean porridge and hasty (Indian meal) puddings. But how have their descendants degenerated in point of health, by a departure from these simple and wholesome rules. It must be acknowledged that, by their habits of luxury, they do not live half as long as their ancestors.

That man is capable of sustaining the health, vigour, and strength of his system upon a diet purely vegetable, is established by so many proofs as to place the fact beyond the possibility of doubt. The Hindoo lives almost exclusively upon rice and water. A great proportion of the Irish peasantry subsist on potatoes, with the addition of oaten cake or bread and milk; and the labouring classes, in many districts of Scotland and the north of England, are nourished upon little else than oat meal and potatoes; while in various other countries of Europe the poor are restricted almost exclusively to a vegetable diet, even less nourishing than these. When the food just referred to is in sufficient quantity and of a good quality, more robust, active, and vigorous frames, and a greater amount of general health, can scarcely be met with in the inhabitants of any other country or among any other classes of society, whatever may be the nature of their diet. Vegetable food affords as

much or more nutrition than animal, while the former produces much less excitement.

We find, says Dr. Lawrence, that, whether we consider the teeth and jaws or the stomach, the human structure closely resembles that of the monkey race; all of which, in their natural state, are completely herbivorous, or vegetable eaters

FACTS ILLUSTRATING THE DIFFERENCE BETWEEN ANIMAL AND VEGETABLE DIET.

"A mulatto girl," says George Paine, Esq., of Providence, R. I., "came to live in my family in her twelfth year; previous to this she had remained at home with her parents, who were very poor. She had always lived in the plainest, simplest, and coarsest manner. During her summers she had subsisted almost entirely upon fruit in its natural state, and through the whole year she ate very little, except the plainest vegetable food. On very rare occasions she ate a little flesh, but not enough to render it, in any proper sense, a part of her diet. She drank water exclusively, and slept on straw. When she first came to live with me her suppleness, activity, agility, and strength so far exceeded anything we had ever seen before in such a child, that she absolutely filled us with astonishment by her feats. Of her own accord she was up in the morning as soon as it was light, and wherever she went she always went with a run, and with the nimbleness and fleetness of a deer. In all her movements she exhibited uncommon natural ease and gracefulness; and in her muscular efforts she evinced a surprising degree of strength. She would, for our amusement, often throw herself down at length in the grass and imitate the motions of the snake, so exceedingly like a snake that it sometimes gave one very unpleasant feelings to look at her; and in a great variety of ways she exhibited the most wonderful suppleness, nimbleness, and agility that I ever beheld in a human body. Her mind seemed to be active and vigorous as her body. Her power of mental apprehension and retention, and facetiousness and wit, were a continual source of surprise and amusement to us. On coming into my family she began gradually to accustom herself to flesh-meat, and in the course of two or three months she became very fond of it, and ate it very freely; and, to our astonishment, for we could not then account for the change, in less than six months all her remarkable suppleness, activity, and strength were gone, and she had become exceedingly sluggish, heavy, and stupid. We could not get her up in the morning until breakfast-time without special and direct means; all her movements became slow, heavy, and sluggish, indicating great indolence; and her mind became as stupid and inactive as her body—and such she has ever remained since, being now fifteen years old."

"I took a boy from the alms-house, in the year 1827," says Mr. Thomas H. Burling, of Westchester County, New York. "He was then in his thirteenth year, and had always before this subsisted entirely on vegetable food. When he first came to my house he was remarkably supple and nimble, and would throw a somerset backward two or three times in succession with great ease. I had a notion that he would be good for nothing to work unless he ate flesh, and so I encouraged and urged him to do so. He soon became fond of flesh and ate it freely, and in less than six weeks he became so clumsy that, whenever he attempted to throw a somerset, he fell like a log."

The interesting young natives of Pitcairn's Island exhibited the same qualities in a very remarkable manner. "A young girl," says Captain Pipon,

"accompanied us to the boat, carrying on her shoulders, as a present, a large basket of yams, over roads and down such precipices as were hardly passable by any creatures except goats, and over which we could scarcely scramble with the help of our hands; yet, with this load on her shoulders, she skipped from rock to rock like a young roe." Captain Beechy testifies to the same suppleness and agility in all the youths of the island.

The Greek peasantry and the lazzaroni of Naples, who subsist on the simplest and plainest vegetable diet, are distinguished for their suppleness, activity, and grace.

"I returned from Greece with Captain Floyd, in the ship Factor," says the venerable Judge Woodruff, of Connecticut, who went out as the Agent of the New York Committee for the relief of the Greeks. "There came over with us to New York, as one of the ship's crew, a Greek youth—a native of Thessaly—whom we called John. He was nineteen years old. He had, from his childhood, been driven about among the Turks almost in the condition of a dumb beast, and subsisted on the plainest, simplest, and coarsest vegetable food—mostly in a natural state, and chiefly fruit. His nimbleness and agility far exceeded anything that I ever before saw in human being. Without exaggeration I can truly say, that he would run up and down the shrouds, and out on the main-yards, and jump about on the rigging with all the nimbleness and rapidity of a squirrel; indeed his exploits of nimbleness upon the rigging often filled me with amazement, which was sometimes mingled with fear for his safety."

The wild men found at different times in the forest in Europe, and who, in their rude state, subsisted entirely on fruits and vegetables, have all been remarkable for their natural suppleness and activity. The wild girl that was found in the forest, would run up trees, and leap from branch to branch and from tree to tree, with the nimbleness of a squirrel; but she lost all this remarkable suppleness and activity when she became accustomed to eat flesh.

Benjamin Howland, Esq., of East Greenwich, R. I., was quite a feeble and infirm man at forty years of age. He abandoned the use of flesh-meat, and took to plain, simple, and unstimulating vegetable diet. He soon became a healthy and remarkably active man; and now, at the age of eighty-two, he has more suppleness and agility than most men at fifty. "Few young men, indeed, walk with so quick and elastic a step as he does. When crossing the fields, if a fence comes in his way, instead of pulling it down or crawling clumsily over it, he places one hand on the top of it and springs over like an active youth." The same experiment has produced the same result in Thomas Shillitoe, of England, and a great number of others in that country and in America whom I might mention, but it is unnecessary.

"With respect to the moorish porters in Spain," says Captain C. F. Chase, of Providence, R. I., "I have witnessed the exceedingly large loads they are in the habit of carrying, and have been struck with astonishment at their muscular power. Others of the labouring class, particularly those who are in the habit of working on board of ships, and called in that country stevedores, are also very powerful men. I have seen two of these men stow off a full cargo of brandy and wine, in casks, (after it was hoisted on board and lowered into the hold,) apparently with as much ease as two American sailors would stow away a cargo of beef and pork. They brought their food on board with them, which consisted of coarse, brown wheat bread and grapes."

"I have made several voyages to St. Petersburgh, in Russia," says Captain Cornelius S. Howland, of New Bedford, Mass. "The people of Russia generally subsist, for the most part, on coarse, black rye bread and garlicks.

The bread is exceedingly coarse, sometimes containing almost whole grains, and it is very dry and hard. I have often hired men to labour for me in Russia, which they would do, from sixteen to eighteen hours and find themselves, for eight cents per day, (the sun shining then sometimes twenty hours in the day.) They would come on board in the morning with a piece of thin black bread weighing about one pound, and a bunch of garlicks as big as one's fist. This was all their nourishment for the day of sixteen or eighteen hours' labour. They were astonishingly powerful and active, and endured severe and protracted labour far beyond any of my men. Some of these men were eighty, and even ninety, years old; and yet these old men would do more work than any of the middle aged men belonging to my ship. In handling and stowing away iron, and in stowing away hemp with the jack-screw, they exhibited most astonishing power. They were full of agility, vivacity, and even hilarity—singing as they laboured with all the buoyancy and blithesomeness of youth."

"The Irish chairmen, porters, and coal heavers in London," says Adam Smith, in his Wealth of Nations, "who have been raised principally on the potato, and who continue to subsist on vegetable food, are perhaps the strongest men in the British Dominions."

"I have frequently witnessed, both in England and in Spain, the amazing bodily strength of the salt and coal heavers, and their ability to perform an astonishing amount of labour in a day," says Captain Chase. "They perform so much, that they generally work by the ton, and not by the day; much, however, probably depends on their being accustomed to this particular species of employment. These men subsist on a simple vegetable diet, except that in England some of them use milk or butter-milk, with oat meal bread, mush, potatoes, &c. I have visited many respectable families in Ireland, who never allow their children to partake of any other than this simple fare. Moreover, I have been informed by many of the young Irishmen from sixteen to twenty-five years of age, that they had never eaten a pound of flesh in their lives, still they were remarkably vigorous, sprightly, and exceedingly well-formed: and the women are uncommonly handsome And of all classes with which I have ever been acquainted, in all countries and climates, the Irish who have been thus reared, and who lead temperate lives, will endure more hardships, fatigue, and exposure than any other." "The finest specimens of human body I ever beheld I saw in Ireland, and they had never tasted animal food," says the Rev. Howard Malcolm, of Boston, who has travelled extensively in America, Europe, and Asia.

"The salt and coal heavers in Liverpool and London are principally Irish," says Captain John Price, of New Bedford, Mass. "I have often employed these men in lading and unlading my ship, and have been surprised at their great strength and power of endurance, in connexion with their simple and scanty diet. Their food consists principally of oat meal and other coarse bread, and cheese—dining on about four ounces of coarse bread and two or three of cheese. On one occasion two of these men came alongside of my ship with a boat-load of salt for me; and one of them actually threw the salt with a shovel up nine feet on to the deck of my ship, as fast as two of my men could throw it into the hole."

"I once discharged a cargo of oil at the port of Lisbon, in Portugal," says Captain Cornelius S. Howland, "and casks of oil were carried from my ship to the store-house by porters. These porters were from the interior or the borders of Spain, and Portugal. They subsisted wholly on vegetable food, almost entirely on course rye bread, and were remarkably stout and

healthy. I had a cask of oil of uncommon size on board, weighing upward of thirty-two hundred pounds, and four of these porters, yoked two by two, took it up by means of ropes going from these yokes under each end of the cask, and carried it about fifteen rods to the store-house."

The celebrated Dr. Cheyne, of England, who flourished about a hundred years ago, says: "For those who are extremely broken with chronic disease, I have found no other relief than total abstinence from all animal food, and from all sorts of strong fermented liquors. In about thirty years' practice, in which I have, in some degree or other, advised this method in proper cases, I have had but two cases in whose total recovery I have been mistaken; and they were both too deeply diseased and too far gone for recovery before I undertook with them." Dr. Lambe, of England, now upward of seventy years old, after a very long, extensive, and successful practice, speaks most decidedly against the use of animal food of any kind in chronic disease. And, during the last seven years, my own opportunity to prove the virtues of different kind of diet in chronic disease has probably been more extensive than any other individual in any age; and I have, as a general rule, always found the pure and well-regulated vegetable diet, under a correct general regimen, is decidedly better than that which contains any portion of animal food. I have, it is true, met with some invalids whose general physiological condition seemed to require that a portion of animal food should be retained in their diet for a few weeks, and perhaps a few months, till the general sluggishness and torpor of their systems could be overcome: but such cases are not common; while, on the other hand, as I have already stated, I have seen multitudes of chronic diseases of every name and type, which had long and incorrigibly withstood medical treatment of every kind, yield—in some instances immediately, and in others in a few weeks or months—to a pure vegetable diet and general regimen regulated by physiological principles. I could fill a large volume with well-authenticated and most interesting detailed accounts of a very great variety of cases of chronic diseases cured in this manner.

An intelligent farmer of Pennsylvania, whose health had for some time been declining, and who, at the age of sixty years, finding himself completely broken down and laid by with all the infirmities of a premature old age, was induced to adopt a simple diet of vegetable food and water, with the hope of mitigating, in some degree, the severity of his sufferings. Of the effects of this experiment he thus expresses himself:

"In less than twelve months from the time I commenced living on my abstemious vegetable and water diet, I was perfectly restored to health, and seemed to have renewed my life; I was entirely free from every pain and ailment, and was very active and vigorous, and more serenely and truly cheerful and happy than ever before since my childhood. My sight improved astonishingly, insomuch that—whereas, before my change of diet, I could, with difficulty, see to read with the best glasses I could procure—now I could easily read the finest print of my newspaper without glasses. But the most wonderful effect was produced on my mind, which became far more clear, active, and vigorous than it had ever been before; indeed, no one who has not experienced the same, can have any adequate conception of the real intellectual luxury which I enjoyed. It seemed as if my soul was perfectly free from all clogging embarrassments and influence of the body. I could command and apply my thoughts at pleasure, and was able to study and investigate the most obtuse subjects; and to write with an ease, perspicuity, and satisfaction which I had never before known nor had any idea

of." (For farther evidence of the same kind, see a treatise entitled "*Science of Human Life.*")

As I wish to remove all doubts as to the injurious effects of animal food on the system generally, and thence to deduce conclusions more particularly, I subjoin the following testimony from writers on this subject, showing the happy effects produced by a mild vegetable diet on the passions and body, and, therefore, on the longevity of man. If we go back to the times of King Nebuchadnezzar, spoken of in Scripture, we shall find there a triumph over the flesh-eating Babylonians, by the experiment made in the case of the four children of Judah, who refused the king's meat and drink, and confined themselves simply to their pulse and water; and yet, for wisdom and fairness of face and proportion, none was found like them in all the king's realm.

Before the discovery of the Ladrone Islands, by the Spaniards, about the year 1620, the inhabitants supposed themselves the only people in the world. (Something like the boy who went out some distance from his own residence, and wondered how people could live so far from home.) They were destitute of almost everything that people in civic life think necessary to existence. There were no animals on the islands except birds, and these they did not eat. They had never seen fire, nor could they at first imagine the properties or the use of it. Their food was wholly vegetable; consisting of fruits and roots in a natural state. They were well formed, vigorous, and active, and could carry with ease upon their shoulders a weight of five hundred pounds. Disease or sickness was scarcely known among them: and they generally attained to great age. It was no extraordinary thing for individuals among them to reach a hundred years without experiencing any sickness.

Does any suppose they had *pills* to make them feel well, or doctors to salivate them, or dentists to take the tartar from their teeth?

Lycurgus, the distinguished lawgiver of Lacedemon, who was considered as a model by Diogenes, Plato, and Zeno, forbade his subjects the use of fatted animals, and even the assistance of either butchers or cooks; and gave as his reason, that the use of fat animals not only tended to corrupt their natures, but likewise to disorder their bodies.

The celebrated Porphyry of Tyre, the Platonist, who flourished about the middle of the third century, in his book concerning abstinence from animal food, addressed to Firmus Castricius, who had relinquished the Pythagorean system, tells him as follows: "You admitted, when you lived among us, that a vegetable diet was better than animal food, both for preserving health and for facilitating the study of Philosophy; and now, since you have eaten flesh, your own experience must convince you that what you then confessed was true. It was not from among those who have lived on vegetables that robbers or murderers, sycophants or tyrants, proceeded; but from *flesh-eaters*. The necessaries of life are few and easily acquired, without any violation of justice, liberty, health, or peace of mind: whereas luxury obliges those vulgar souls who take delight in it, to covet riches, to give up their liberty, to sell justice, to misspend their time, to ruin their health, and to renounce the joy of an upright conscience."

Porphyry says:

1st. "That a conquest over the appetites and passions will greatly contribute to preserve health and to remove disease.

2d. "That simple vegetable food, being easily procured and easily digested, assists very much in obtaining this conquest over ourselves.

"Give me a man who considers seriously what he is, whence he came, and whither he must go, and from these considerations resolves not to be led

astray nor governed by his passions, and let such a man tell me whether a rich animal diet is more easily procured, or incites less to irregular passions and appetites, than a light vegetable diet! But if neither he, nor a physician, nor, indeed, any reasonable man whatsoever dares to affirm this, why do we oppress ourselves with animal food? and why do we not, together with luxury and flesh-meat, throw off the encumbrances and snares which attend them?"

"You ask me," says Plutarch, "why Pythagoras abstained from eating the flesh of brutes? For my part, I am astonished to think, on the contrary, what appetite first induced man to taste of a dead carcass; or what motive could suggest the notion of nourishing himself with the flesh of animals which he saw, the moment before, bleeting, bellowing, walking, and looking about them. How could he bear to see an impotent and defenceless creature slaughtered, skinned, and cut up for food? We should, therefore, rather wonder at the conduct of those who first indulged themselves in this horrible repast, than at such as have humanely abstained from it."

Cullen remarks, in his *Lectures on the Materia Medica*, that vegetable aliment, inasmuch as it never over-distends the vessels nor loads the system, never interrupts the stronger motions of the mind; while the heat, fulness, and weight of animal food is an enemy to its vigorous efforts. Temperance, then, does not so much consist in the quantity, for that always will be regulated by our appetite, as in the quality.

The celebrated Baron Cuvier says, that man resembles no carnivorous animal; and that the structure of the human frame is fitted and peculiarly adapted to a pure vegetable diet in every essential particular. It is true, that those who have long been accustomed to the stimulus of animal food, very reluctantly abandon its use, which is the case more particularly with those of a weak mind; but this, however, is no *argument* in its favour.

From examples and customs it may probably be concluded, that the common ingredients of health and long life are great temperance, open air, easy labour, little care, simplicity of diet, rather fruits and plants than flesh, which easier corrupts, and water, which preserves the radical moisture without too much increasing the radical heat. Whereas sickness, decay, and death proceed commonly from the one preying too fast upon the other, and at length wholly extinguish it.

Doctor Abernethy says, "if you put improper food into the stomach, it becomes disordered, and the whole system is affected. Vegetable matter ferments and becomes gasseous, while *animal* substances are changed into a *putrid*, *abominable*, and *acrid* stimulus." The effects of animal food, and other improper stimulants upon the system, likewise induce preposterous noses, blotches on the face and other parts of the body, gout, apoplexy, inflammation of the eyes, decay of the teeth, &c.

Cheyne says, "it is surprising to what a great age the Eastern Christians, who retired from the persecutions into the deserts of Egypt and Arabia, lived healthful on a very little food. We are informed by Cassian, that the common measure for twenty-four hours was about twelve ounces, with only pure water for drink. St. Anthony lived to 105 years on mere bread and water, adding only a few herbs at last. On a similar diet James the hermit lived to 104. Arsenius, the tutor of the Emperor Arcadius, to 120; sixty-five years in society and fifty-five in the desert. St. Epiphanus to 115; St Jerome to about 100; Simeon Stylites to 109; and Romualdus to 120.

A sheep that was fed on flesh for some time on board a vessel, where vegetable matter could not be obtained, at the end of the voyage refused its natural food. Instances of horses, oxen, and other herbivorous animals, after

having been fed on flesh for some time, have actually loathed their natural food.

Buchanan informs us of one Laurence who preserved himself to 140, by the mere force of temperance and labour. Spotswood mentions one Kentigern (afterward called St. Mongah, or Mungo, from whom the famous well in Wales is named) who lived to one hundred and eighty-five years; and who, after he came to years of understanding, never tasted wine nor strong drink, and slept on the ground. My worthy friend, Mr. Webb, is still alive. He, by the quickness of the faculties of the mind and the activity of the organs of his body, shows the great benefit of a low diet; living altogether on vegetable food and pure water. Henry Jenkins lived to one hundred and sixty-nine years on a low, coarse, and simple diet. Thomas Parr died at the age of one hundred and fifty-two years and nine months. His diet was course bread, milk, cheese, whey, and small beer; and his historian tells us that he might have lived a good while longer if he had not changed his diet and air; coming out of a clear, thin air, into the thick air of London, and being taken into a splendid family, where he fed high and drank plentifully of the best wines, and, as a necessary consequence, died in a short time.

"Ephraim Pratt, of Shutesbury," says the Library of Health, "who died in 1804, at the age of one hundred and sixteen years, took no animal food for forty years, and yet he could mow a 'good swarth' almost to the hour of his death."

"The Brazilians, when first discovered by the Europeans, lived the most natural original lives of mankind, so frequently described in ancient countries, before laws or property or arts made entrance among them; they lived without labour, farther than for their necessary food, by gathering fruits, herbs, and plants; they knew no drink but water; and were not tempted to eat or drink beyond their common thirst or appetite."—*Sir John Sinclair's Code of Health*, vol. iv., p. 333.

"The chief food of the Japanese is rice, pulse, fruits, roots, and herbs; but mostly rice, which they have in great plenty and perfection."—*Mod. Univ. Hist.*, vol. ix., p. 62.

"The philosophers of India eat nothing but rice, fruits, and herbs."—*Bartolomeo's Voyage, by Johnson*, p. 287.

"The four most ancient orders of priests, the Rahans, the Bramins, the Magi, and the Druids, confined themselves to vegetable food, as did the Athenian Prince, Triptolemus, who established the Eleusinian mysteries, and prohibited, by law, all injury to animals."—*Monthly Magazine*, Feb., 1812, p. 21.

My friend, Dr. Parmly, says: "I have, myself, suffered much in former years from debility and other forms of indisposition, induced, I am persuaded, by gross and improper diet. For the last year I have abstained from all exciting drinks, have utterly relinquished the use of tea and coffee, have abstained from animal food of every name and nature, and, by this course of conduct, have found my health so much benefited, that I feel it a duty, as well as a pleasure, to endeavour to impress upon the reader the necessity of living more frugally, if he wish to enjoy that health of body and tranquillity of mind which none can enjoy, for any length of time, but such as live in accordance with the rules prescribed by all sound philosophers, both of ancient and modern times."

"*The throat has destroyed more than the sword.*"—Martial. "The nations that subsist on vegetable diet are of all men the handsomest, the most robust, the least exposed to disease and violent passions, and they attain the

greatest longevity. The Bramins of India, who frequently survive a century, eat nothing but vegetables. From the Pythagorean school (which was vegetable eating) issued forth Epaminondas, so renowned for his virtues, Archytas, so celebrated for his skill in mechanics, and Milo, of Crotona, for his strength. As vegetable diet has a necessary connexion with many virtues, and excludes none, it must be of importance to accustom young persons to it, seeing its influence so powerfully contributes to beauty of person and tranquillity of soul. The children of the Persians, in the time of Cyrus, and by his orders, were fed with bread, water, and cresses; and Lycurgus introduced a considerable part of the physical and moral regimen of these children into the education of those of Lacedemon. Such diet prolongs infancy, and, of course, the duration of human life."—*St. Pierre's Study of Nature*, vol. iv., p. 357.

"As, in every period of history, it has been known that fruit and vegetables alone are sufficient for the support of life, and that the bulk of mankind live upon them at this hour, the adherence to the use of animal food is no more than a persistence in the gross customs of savage life—and evinces an insensibility to the progress of reason and to the operation of intellectual improvements."—*Dr. Lambe on Regimen*, p. 243.

"It was well observed by the late Dr. Saunders, that we are made gluttons from the cradle, by the officiousness of our nurses. A child's health is disordered by being over-fed; it cries and complains from the effects; and, with a view to silence it, more and more food is given; so that the evil is increased instead of being remedied, and the capacity of the stomach gradually extended far beyond the salutary bounds of nature."—*Dr. Hare on the Stomach*, p. 134.

"Dr. Alphonzo Lercy, of Paris, has published an essay on certain diseases of men, which he traces to the animals on which they are fed; and he establishes the doctrine generally, that many diseases with which mankind are afflicted are communicated by eating the flesh of animals."—*Monthly Magazine*, June, 1815, p. 446.

"The late Sir Edward Barry prevailed with a man to live on partridges without vegetables; but, after eight days' trial, he was obliged to desist, in consequence of strong symptoms then appearing of an incipient putrefaction."—*Sinclair's Code of Health*, vol. i., p. 425.

"The use of swine's flesh, in union with ardent spirits, is, in all likelihood, the grand cause of scurvy, which is so common in the British nation, and would probably assume the form and virulence of a leprosy, were our climate as hot as that of India."—*Dr. Adam Clarke.*

"It is a remarkable fact, that at Heimaey, the only one of the Westmann Islands which is inhabited, scarcely a single instance has been known, during the last twenty years, of a child surviving the period of infancy. In consequence, the population, which does not exceed two hundred, is entirely kept up by emigration from the main land of Iceland. The food of this people consists principally of sea-birds, fulmars, and puffins. The fulmars they procure in vast abundance; and they use the eggs and the flesh of the birds, and salt the latter for their winter food. There are a few cows and sheep on the island, but the inhabitants are said to have no vegetable food."—*Dr Lambe's Reports on Regimen*, p. 197.

"The man who forsakes not the law, and eats not flesh-meat like a bloodthirsty demon, shall attain good will in this world, and shall not be afflicted with maladies."—*Laws of Menu, from Sir William Jones*, vol. iii., p. 206

"Happy the man

Who feeds on fruits which, of their own accord,
The willing ground and laden trees afford." *Dryden's Virgil.*

"The moral effect of aliment is clearly evinced in the different temper of carnivorous and frugivorous animals. The same effect of aliment is discernible among the different species of men; the peaceful temper of the frugivorous Asiatic is strongly contrasted with the ferocious disposition of the carnivorous European."—*Rousseau.*

"The man who sheds the blood of an ox or sheep, will be habituated more easily than another to witness the effusion of that of his fellow-men."—*Encyclopedia, Methodique*, tome vii., part 1., liv. 65.

"India, in fact, of all the regions of the earth, is the only public theatre of justice and tenderness to brutes and all living creatures; for there, not confining murder to the killing of man, they religiously abstain from taking the life of the meanest animal."—*Ovington's Voyage to Surat*, p. 286.

"The Gentoos rear numerous herds of cattle; but such is their veneration for these animals, on account of their useful and patient services to man, that to kill, or even maim one of them, is deemed a capital offence."—*M. De Page's Travels*, vol. ii., p. 27.

"Among the Wallachians, though there is no positive institution to the contrary, yet the women never destroy the life of any living creature."—*Dr. Alexander's History of Women.*, vol. i., p. 363.

"The Indian Bramins never kill nor eat any sort of animal; and it is certain they have not done it for more than 2000 years."—*Dr. Clarke's Fleury*, p. 87.

"As a proof of the havoc committed by savage men on the creatures of his prey, it is said there are in Paris four thousand sellers of oysters; and that fifteen hundred large oxen, and above 16,000 sheep, calves, or hogs, besides a prodigious quantity of poultry and wild fowls, are eaten daily."—*Bayle's Dictionary, article Ovid.*

"I no longer eat flesh-meat nor drink fermented liquors. With regard to the flesh of animals, I am persuaded we have no other right than the right of the strongest, to sacrifice to our monstrous appetites the bodies of living things, of whose qualities and relations we are ignorant."—*Life and Remains of J. Tweddell*, p. 215.

"Abstinence from animal food, says Shelley, subtilizes and clears the intellectual faculties."—*Life of Shelley.*

"By salt and other high seasonings they stimulate the appetite, turn round the wheels of life too rapidly, and wear out the body or machine before its time."—*Dr. Abernethy.*

"It is not, I think, going too far to say, that every fact connected with the human organization goes to prove that man was originally formed a frugivorous animal."—*Bell on the Teeth*, pp. 33–36.

It has been ascertained, by the most careful experiments, that the various kinds of flesh-meats average about 35 per cent. of nutritious matter, while rice, wheat, and other kinds of grain afford from 80 to 95 per cent.

Howard, the philanthropist, after testing the effect of a vegetable diet personally, and while exposed to plague, pestilence, the foulest dungeons filled with malignant infections, remarks, "I am firmly persuaded, as to the health of our bodies, that herbs and fruits will sustain nature in every respect far beyond the best flesh."

Animal food produces the following effects:

1st. It is more stimulating than vegetable food.

2d. It increases the action of the heart and arteries, and thus causes a quicker pulse and hotter skin.

3d. The chyle and blood taken from a living vessel, formed by animal food, becomes sooner putrid than that formed from vegetable food.

4th. The human body has more power to endure fatigue and resist disease when nourished by good vegetable food, than when nourished by flesh-meat.

The following remarks are taken from Richerand's celebrated work on Physiology, a standard book in all medical schools :

"A purely vegetable diet conveys into the blood," says Pythagoras, "mild and bland principles. This fluid excites the organs in a moderate degree, and this check over the physical excitement facilitates the observance of the laws of temperance, the original source of all virtues. The carnivorous, or flesh-eating species, are marked by their strength, their courage, and their ferocity. Savages who live by hunting, and who feed on raw, bloody, and palpitating flesh, (like the tiger,) are the most *ferocious* of men ; and in our own country, (France,) in the midst of those scenes of horror, called 'the reign of terror,' which we have witnessed and from which we have suffered, it was observed that BUTCHERS *were foremost in the massacres and in all the acts of atrocity and barbarity.* It would seem, 1st, that the habit of slaying animals had familiarized them to shed human blood ; 2d, that the daily use of animal food made them ferocious."—*Richerand's Physiology*, p. 173.

I shall make a few remarks upon the articles of diet most in use.

1*st*, *Bread.* Bread is said to be the staff of life, being used more than any other kind of diet. The articles, then, of which it is composed are of the greatest consequence. I am satisfied that bread, as now made and used, is one great cause of disease. The flour from which it is made is separated from the bran, the coarser part, designed by nature to keep up a continued action and stimulus to the bowels, for the purpose of preventing costiveness and a deranged state of the stomach and intestines.

Another objection to bread made in our large cities is, the quantity of yeast added to the flour, which ferments it so much as to destroy the sweetness, and often forms acidity.

Some, it is said, add alum, vitriol, and other deleterious substances, which render it very unwholesome. This is another source of indigestion and complaints of the liver. In grinding wheat, the coarser parts should never be separated from the fine ; but both should be ground coarse and mixed together, then made into bread in the ordinary manner. A small quantity of Indian may be added, and yeast to ferment it sufficiently. This kind of bread, although it is not so white as that made of superfine flour, is more palatable, much lighter, more easily digested, regulates the bowels, and I know not but I may with propriety add, that, with other precautions, it is a cure for the dyspepsia.

2*d*, *Tea and Coffee.* Tea and Coffee are injurious, especially to invalids, dyspeptic and nervous people ; they produce debility, hysterics, and other evil consequences. Tea and Coffee, being both narcotic or poisonous, have many ill effects, by impairing the powers of the stomach, producing various nervous symptoms, palpitations of the heart, restlessness, headache, a pale and sallow hue of the skin, and all the usual train of morbid feelings which accompany dyspepsia.

Sidney Bowne, of Westchester County, a man of great integrity, informs me that the use of coffee so debilitated his nervous system, that he could not write till nine o'clock in the morning. He, however, continued to use it very strong, till he became so nervous that he was obliged to abandon it, and drink nothing but water, which soon removed all his nervous symptoms.

John Burdell, of this city, has discovered, by a course of experiments on animals, that tea is very poisonous. He made a decoction of the plant and gave it to a rabbit and a young cat, which killed them in a few minutes How many of the nervous diseases, which are so common, proceed from the use of tea and coffee, is a question worthy of investigation. "During an extensive dental practice," says Burdell, "I have had an opportunity of observing the condition of those of my patrons who were in the habit of drinking strong tea, and I have found that such persons have weak, irritable, and sensitive nerves."

3d, Cookery. The arts of cookery render many things unwholesome which are not so in their own nature. By jumbling together a number of different ingredients, in order to make a poignant sauce or rich soup, the composition proves almost a poison. All high seasoning, pickles, &c., are only incentives to luxury, and never fail to injure the stomach; they disorder it and impair the health of the system generally, by rendering the food too heating and difficult of digestion, and by inducing us to partake of too much food, or to eat in the absence of the natural appetite. "It were well for mankind if cookery, as an art, were entirely prohibited. Plain roasting or boiling is all that the stomach requires.

4th, Pastry. Pastry is generally unwholesome, and whatever is hard of digestion. In a word, plain and wholesome food, simply cooked, ought to be used. Ripe fruits of all kinds may be taken with safety; but crude and unripe fruits are very dangerous: they bring on acidity and bowel-complaints.

5th, Milk. Milk is the food destined by nature for the infant period, and seems admirably adapted for the use of young children, as well as adults whose powers of digestion are enfeebled either by dissipation or disease. In its pure state, however, it is apt to disagree with some persons; in which case it will be advisable to dilute it with water. Those who labour under pulmonary consumption and hectic fever are frequently confined to a milk diet, and in such cases the milk of the goat has been much employed in preference to that of the cow, being of a lighter nature. When that of the former is not to be obtained, that of the latter may be rendered more easily digestible, by allowing it to stand for some time, and then skimming off the cream from it.

SIMPLICITY IN DIET.

Nature delights in the most plain and simple food, and every animal, except man, follows her dictates. Man alone riots at large, and ransacks the whole creation in quest of luxuries, to his own destruction. An elegant writer of the last age speaks thus of intemperance in diet: "For my part, when I behold a fashionable table set out in all its magnificence, I fancy that I see gouts and dropsies, fevers and lethargies, with other innumerable distempers, lying in ambuscade among the dishes."

WATER.

Good water is of the greatest importance to the animal economy. It is the most simple of all liquids.

"Nothing like simple element dilutes
The food, and gives the chyle so soon to flow."

Water should be free from any mineral or vegetable ingredient It may be considered pure when it is perfectly clear, without any disagreeable smell or taste, soft, and easily unites with soap. The more pure the water, the more healthy. When it is impregnated with foreign substances, ill effects follow the use of it. The water of marshes and stagnant ponds is not fit to drink, and the water of many cities, particularly the city of New York is very injurious: it is highly impregnated with the carbonate of lime, as may be seen by the decomposition of calcareous matter which is copiously deposited on the bottom and sides of those vessels in which it has been boiled. By using such impure water constantly for drink and cooking, large quantities of earthy and deleterious substances are taken into the system, and occasion dyspepsia, gravel, and other complaints. Rain and snow-water, and that running over gravel beds, is considered purest; but good spring water is better than either. The noted "rain-water doctor" cured his patients by prescribing the free use of this "universal menstruum." It should never be drank too cold, especially when the body is heated or in a profuse perspiration. The most dreadful consequences follow drinking cold water in hot weather, while the pores are open or when in a copious perspiration. Spasms, convulsions, and death often follow quickly. If this should happen, perspiration should be restored as soon as possible. Bleeding should not be resorted to, as is now the custom, but give a large tea-spoonful or two of camphorated spirit in a little gin or brandy, every fifteen minutes until relief is afforded. The hands and face should be washed or bathed before any cold water is drank, and then a small quantity only taken at a time. Let it also be held in the mouth a few minutes before it is drank. It is as equally dangerous to drink fresh buttermilk when a person is overheated. A person died in a few minutes aften drinking it freely. Many have lost their lives for want of these precautions. Another caution is necessary for farmers and other persons residing in the country. When stooping down to drink from brooks on woody mountains in this country, they will sometimes meet with small lizards and insects concealed among the leaves in the water, which are sometimes inadvertently swallowed, and prove dangerous.

Simple water, in general, is sufficient for those who are in health, but it may be rendered more palatable by the addition of molasses. The addition of a table-spoonful of good lemon syrup to half a pint of fresh water makes a very pleasant and wholesome drink. Good syrup should be procured, as it is often adulterated by the juice of lemons that are decayed. Common lemonade, made by the fresh juice of lemons or limes, and sweetened with loaf sugar, makes a cooling and agreeable drink in hot weather.

CHAPTER III.

FERMENTED LIQUORS.

ARDENT SPIRITS.

Water, says Dr. Cheyne, is the only simple fluid fitted for diluting, moistening, and cooling—the only ends of drink appointed by nature; and happy

had it been for mankind if other mixed and artificial liquors had never been invented. Water alone is sufficient, and effectual for all the purposes of human wants in drink. Strong liquors were never designed for common use: they were formerly kept as other medicines are, in apothecaries' shops, and prescribed by physicians to refresh the weary, strengthen the weak, and raise the low-spirited. As natural causes will always produce their effects, the effects of the common use of wine and spirituous liquors are, to inflame the blood into gout, stone, rheumatism, fevers, pleurisies, &c., and to dry up the juices, and scorch and shrivel the solids. Those whose appetite and digestion are good and entire, never want strong liquors to supply them with spirits; such spirits are too volatile and fugitive for any solid or useful purposes of life.

Spirituous liquors inflame the blood, corrode the coats of the stomach, impair digestion, destroy the appetite, and induce many diseases of the most dreadful kind, such as gout, scirrhus of the liver or spleen, dropsy, apoplexy, palsy, madness, and fevers of different kinds: they also impair the judgment, destroy the memory, and produce intoxication.

Of all the ways in which spirituous liquors are used, that of drinking them in the form of drams is the most injurious; and although, perhaps, it may be a slower way of destroying life than by taking a dose of any active poison, still in the end it will be attended with that direful effect. The habit steals on imperceptibly with many, and under any depression of spirits they have recourse to it; but one dram begets a necessity for another, and at length the indulgence becomes unlimited and the vice uncontrollable. The constitution shows its effects; the appetite is destroyed, digestion impaired, lowness and dejection of the mind, with tremours of the nerves, ensue, the face is blotched, the nose red and beset with bumps, and nausea, vomitings, frequent eructations, flatulency, and great disorder in the biliary organs take place; the liver becomes enlarged, indurated, and tubercular, and at last dropsy manifests itself, if the patient is not previously cut off by apoplexy or palsy.

It does not seem easy to determine which of the two, viz., opium or spirituous liquors, by being improperly used, proves most detrimental to the human constitution: unluckily, the victims who addict themselves to either are ensnared by a habit which they find it impossible to relinquish; because the constitution, when habituated to a strong stimulus, becomes incapable of carrying on the functions of life without continual excitement, which of itself brings on debility and premature decay.

The speedy effects which opium, or indeed any of its preparations, is observed to have on those persons who take it habitually, are an exhilaration of animal spirits; and from a dozing and depressed state into which they sink after passing the usual time of taking the dose, they become alert and cheerful; but those who accustom themselves to this drug are of a yellow complexion, look much older than they really are, lose their appetite, and their bowels are invariably constipated. Those who indulge in a free use of strong and spirituous liquors, have but little desire for food after a time, the liver becomes diseased, (being either beset with tubercles, or indurated, scirrhous, or enlarged,) the countenance is tinged of a yellow hue, general debility ensues, and dropsy at last destroys life. Palsy is often also the consequence of a continued course of such intemperance.

Habits of drunkenness often take their rise from a connexion with some company or companion already addicted to the practice; which affords an almost irresistible invitation to take a share in the indulgences which those about us are enjoying with so much apparent relish and delight; or from

want of regular employment, which is sure to occasion many superfluous and pernicious cravings, and frequently this among the rest; or it may have originated from grief or fatigue, either of which strongly solicit that relief which inebriating liquors administer for the present, and furnish a specious excuse for complying with the inclination. But the habit, when once adopted, is continued by different motives from those to which it owes its origin. Persons addicted to excessive drinking suffer, in the intervals of sobriety, and near the return of their accustomed indulgence, a faintness and oppression which exceed the common patience of human nature to endure. This is usually relieved, for a short time, by a repetition of the same excess: and to this relief, as to the removal of every long-continued pain, those who have once experienced it are urged almost beyond the power of resistance. The only remedy is total abstinence.

A landlord, who gave to every customer an example of his moderate drinking, complained of the badness of his eyes, and asked a Quaker what he should do for them, removing his goggles and submitting his swollen, inflamed eyes to the examination of his customer. "My advice, friend," replied the Quaker, "is, that thou should put thy brandy on thy eyes, and tie the goggles over thy mouth!"

WINE.

Wine, unmixed with alcohol, used in moderation, may be considered a wholesome drink. In those countries where it is produced in abundance the people drink freely of it without injury, and are proverbially temperate. In France, where there are such immense quantities of wine, a drunkard is seldom or never to be found. It seems to destroy that hankering after ardent spirits, which is so peculiar to other countries where wine is not much made. The wine imported into this country contains such a large quantity of alcohol, that it becomes injurious. Hence the necessity and importance for Americans and others to plant vineyards. Some of our most sensible men give it as their opinion, that if wine was as freely used as in France, it would eradicate the universal vice of intemperance. This, however, is very doubtful.

Says a noted writer upon this subject: "Wine, when used in moderation, proves generally grateful to the stomach; it warms and stimulates it to greater exertion, promotes probably a more speedy discharge of its contents, and, from its immediate action, imparts a transient sensation of warmth and comfort; but when taken in an immoderate quantity, it produces intoxication for the time, and, its exhilarating effects having subsided, it leaves the frame disordered, relaxed, and weak. Wine may be considered as the best of cordials, where its good qualities are not destroyed by too free and frequent a use. Most of the great drinkers of vinous and spirituous liquors die of relaxation, debility, loss of appetite, tubercles and scirrhosity of the liver, or dropsy."

"The usages of wine are great, both as a beverage and a medicine. Several physicians recommend it as an excellent cordial, and particularly serviceable in fevers. The moderate use of wine is of service to the aged, the weak, and the relaxed, and to those who are exposed to a warm and moist or corrupted air: wine deserves to be ranked first in the list of Antiscorbutic liquors. Considered as a medicine, it is a valuable cordial in languors and debilities; grateful and reviving; particularly useful, in the low stage of malignant or other fevers, for raising the pulse and resisting putrefaction."

BEER.

Malt liquors waste the powers of life, keep up a constant fever, exhaust the spirits, inflame the blood, cause headache and premature old age, and, drank frequently and to excess, expose the body to numberless diseases. They particularly disagree with persons of a bilious temperament, and those subject to flatulency, coughs, and inflammatory affections. In cases, however, of great debility, where a stimulus is required, they may be given with success, particularly in the form of *Porter*. This article is very strengthening to females debilitated by nursing.

SPRUCE BEER.

This is a very cooling and pleasant beverage, which may be freely drank. It must be made, not of the syrup of spruce, which is now customary, but with a decoction of the leaves, by which the flavour and qualities are rendered altogether different and much improved.

MEDICAL OR ROOT BEER.

The following Beer will not only be found a substitute for many common drinks, but a very pleasant and wholesome beverage. Besides, it possesses alterative properties, attenuates viscid humours, and purifies the blood.

Take Sassafras root, (Rad. Sassafras) q. s.
" Burdock root, (Arctium Lappa) q. s.
" Wild Cherry tree bark, of the root, (Prinos Virginiana) q. s.
" Root of Black Alder, (Prinos Verticillatus) q. s.
" Spice Wood or Fever Bush, q. s.

Make a strong decoction by boiling several hours, strain, sweeten well with molasses or honey, then add, when it is blood warm, sufficient yeast to ferment it. In a short time, or as soon as it commences fermentation, it is fit for use. This may be freely taken as a diet drink. It is very pleasant, and excellent to prevent disease and keep the system in a healthy state, and it is grateful and cooling in all kinds of fevers. A little ginger and hops make it better

CIDER.

Cider made from ripe apples, properly fermented, and racked or purified, is, of all fermented liquors, the most innocent and the best. But too little pains is taken with cider. It may be made, by care and proper management, as fine flavoured and as clear as wine.

MEAD.

Mead made by adding honey to water, and fermenting it, is very pleasant and wholesome.

CHAPTER IV.

AIR.

Few are aware of the effect of air in producing disease or the promotion of health. It is the principal medium by which animal life is supported; and so necessary is it for this purpose, that life cannot exist a moment without it as will appear by placing an animal in the exhausted receiver of an air pump

IMPURE AIR.

Impure air is a very common cause of disease. Where it is very impure it proves fatal suddenly; and where it is mixed with that which is pure, the effect of it on the system soon becomes perceptible. Indeed it would appear that most disorders proceed from unwholesome air, or an atmosphere highly charged with deleterious gases. The Influenza, which often occurs as an epidemic, is caused by it, seizing thousands of persons and spreading over extensive districts. The *Indian Cholera*, so highly pestilential, is communicated by an impure atmosphere. Also the intermittent, remittent, and yellow fevers. Cities, towns, and villages have been almost depopulated, by reason of unwholesome air received into the circulation through the medium of the lungs.

The deleterious nature of impure air is still more strikingly exemplified where carbonic acid gas, called "choke damp," or fixed air, has accumulated in large quantities, as in wells, mines, beer vats, and in such places as the Grotto Del Cani, in Italy, where animal life becomes immediately extinct Dogs are thrown into the latter place, and are immediately killed by inhaling the gas with which it abounds; and the great number of lives that are annually lost in wells and mines is familiar to all; from which we learn the great influence which impure air has upon our health. Persons should never descend any of these places, until they have previously let down a light to ascertain if combustion can be supported. If the light is extinguished, I scarcely need add that no one can subsist in them a moment. By thus letting down a lighted candle into any place that has been long closed, many valuable lives might annually be saved. I may here also observe, that, in case a person has been thus suffocated, another person may be let down with a rope fastened to a tub; or a noose may be made of the rope, by which he may be enabled to take hold of and rescue the patient, provided he holds his breath during the time he is in the lower part of the well, that he may not inhale the gas; or a number of ordinary bags, or those made of muslin, may, in a few minutes, be made, and placed over the head and tied to the neck of the person; these (bags) may be kept open by attendants above a sufficient time to admit the common atmospheric air, which will enable him to respire and continue any length of time where this gas exists.

M. Schrœder, member of the New York Literary and Philosophical Society, has communicated an account of an ingenious contrivance, called a "safety pump," which extricates this kind of air from wells, vats, &c., in a very few minutes. It has been successfully tried several times in this city. A pump made of tin, in the ordinary manner, would no doubt answer the same purpose.

When it has been discovered that this kind of air exists in any place, in order to remove it, slacked lime must be plentifully introduced. The cra-

bonic acid gas unites with the lime, for which it has a great affinity, and a carbonate is formed, which renders the air pure.

AIR OF CROWDED ASSEMBLIES.

When we reflect upon the quantity of atmospheric air which a single person renders impure or unfit for inhalation, we shall readily see the danger arising from the air of crowded assemblies. It is computed that a man destroys the vital portion of a gallon of air per minute. To test this, let an animal be confined in a jar of common air, perfectly closed; in a short time the inhalation of it absorbs the oxygen, and leaves only the nitrogen and a small proportion of carbonic acid gas, which, being incapable of supporting combustion, soon takes the life of the animal. In the same manner the health of people is impaired, by being confined in jails, prisons, or being in crowded assemblies, or sleeping in close rooms, and where there are a number of others. Many have been suffocated in this manner. A most melancholy circumstance occurred in the "black hole" of Calcutta. A vast number of prisoners were crowded so closely together, where there was little or no circulation of air, that most of them died in a short time. It is owing to this that close stoves prove so injurious. They destroy the vital portion of the air, so indispensable to health and life, while the remaining impure air is inhaled, and the consequence is headache, languor, and other ill effects. Those who are obliged to use small stoves should place a vessel of water upon them, which, in a great measure, affords a preventive.

Persons should be careful also to promote a free circulation of air in their houses, by frequently opening their windows. I have been in the habit of doing it at night, without receiving the least injury; but, on the contrary, I think, with much benefit. A noted physician was so impressed with the importance of this subject, that he slept with his windows open during the whole year. In the winter snow was often found upon his bed. He considered pure air of vital importance to health.

"I would propose," says a writer, "that the casements of all public rooms, and, indeed, of private houses, shall be so constructed as that the upper division shall slide down, and that a certain portion of them, according as the room is more or less crowded, be always kept open. By thus promoting a free and constant circulation of air in every apartment, whether occupied or not, the internal or external air become nearly of an equal temperature; the foul air which is generated in close unoccupied chambers, and which adheres to the walls and furniture, will be carried off before it is accumulated, and the usual practice of airing rooms, by opening the windows, and warming them with fires, will be less, if at all, necessary.

"The most neat and delicate person, after having passed the night in his bed-chamber, does not, when he awakes, discover any offensive smell in his room; but if he quits it for a few minutes, and returns to it after having been in the open air, and before fresh air has been admitted, he will quickly discover an essential difference."

In crowded meetings or assemblies delicate persons often become sick and faint, and in every place where the air becomes injured by repeated breathing, or by fires, candles, &c.

AIR OF CITIES.

The air in cities is injured by being so often breathed and stagnated by

narrow streets, numerous and compact houses and apartments, a dense population, exhalations arising from putrid substances, filth, smoke of factories, dirty streets, &c. The streets of our cities are altogether too narrow, as well as too filthy. Those who come from the country to the city often become immediately affected by the polluted and contaminated air.

Our cities should be built as Babylon and other ancient cities were. The streets were wide; houses a distance apart; numerous gardens, trees, plants, &c. It is a disgrace to our municipal authorities, that no more attention is paid to the cleanliness of our streets and yards; the exhalations arising from which is not only unpleasant, but very unwholesome. Yards, privies, and every house should be often thoroughly cleansed and white-washed.

BURYING WITHIN MEETING-HOUSES, CITIES, ETC.

Another detestable practice is, to bury within large cities, churches, &c. The air is rendered extremely fetid and unhealthy by the decay of animal matter, which often may be experienced on entering such places. This being inhaled by the lungs, must prove injurious, especially to weak and delicate persons. This practice should be strictly forbidden. In most eastern countries it was customary to bury the dead at some distance from any town. As this practice obtained a reputation among the Jews, the Greeks, and also the Romans, it is strange that we should not have followed their example in a custom so truly laudable.

The editor of the New York Lancet thus remarks: "The character of those whom we now address renders it unnecessary for us to make any remarks on the disastrous influences which impure air exerts on the health. It is enough to say, that the very presence of the living multitudes that have their being in crowded cities, causes such a deterioration of the atmosphere, as renders the slightest additional cause a matter of the utmost importance. And surely the gaseous products of the charnel-house form an agency of death, sufficiently potent to awaken fear and induce avoidance. The experiments of Magendie on this subject will recur to the memories of most of our readers. He demonstrated, with sufficient clearness, that the decomposition of the dead produced a poison, which, even when diluted by the atmosphere and spread over a large extent of country, was the fruitful source of disease, decrepitude, and death. An infinitely small portion of the poison, injected into the jugular vein of a dog, produced death after the most intense symptoms of malignant fever.

"Mr. Walker, a surgeon of London, has recently directed the attention of the British public to this important subject, in his 'Gatherings from Graveyards,' to which we would beg to refer our readers, for a vast amount of curious information. Mr. Walker adduces a great number of cases, some of which ended fatally, in order to show the malignant influence of inhumation in city burying-grounds, and vaults beneath churches, which is obviously still more destructive; and he very earnestly, but not more earnestly than the occasion demands, presses on the municipal and civil authorities the immediate necessity of adopting measures for the prevention of this great evil.

"Interment in crowded cities is as offensive to all those hallowed feelings which cling to the memories of the dead, as it is to health. We would not have our body laid in one of those receptacles,

> "'To be thrown up again by some rude sexton,
> And yield its narrow house another tenant,
> Ere the moist flesh had mingled with the dust,

Ere the tenacious hair had left the scalp—
Exposed to insult, lewd, and wantonness.'"

Nor are the lingering remembrances that connect us with the spot where kindred and friends are laid, relieved by the feeling that the repose of that sepulture is perpetually broken by the full tide and roar of life, that 'never stops to remember one inhabitant of all the tombs;' or that may one day be still more ruthlessly invaded, to make room for a new street or thoroughfare, over which the thronging crowds will hurry in their pursuit of business, or pleasure, or folly, or crime, soon to be numbered in their turn with those on whose utterly abandoned remains they tread."

AIR IN CONFINED VESSELS.

It becomes necessary to use great caution in rendering air pure in vessels, otherwise malignant diseases may prevail on board of them. Lime should be occasionally thrown into different parts of the hole, and the scuttle left open to permit the stagnant air to escape; but what is still better, ventilation should be used in every vessel of any magnitude, which throws the pure air to the bottom and expels the foul. An account is given in a Scotch paper of two brothers, one of whom nearly suffocated, the other perished, by closing the companion so close that they had, during the night, exhausted the vital air necessary for respiration.

CHANGE OF AIR.

The effect of change of air on the health is almost incredible, especially by removing from the city to the country: the effect seems still greater on infants and children than adults, thousands of whom annually die from the effects of impure air. Many who have been labouring under the most serious and apparently incurable diseases, by removing from the city to the country, or from an inland residence to the sea-shore, have rapidly recovered. I might mention striking instances of this fact. It is often equally as salutary to remove from one climate to another of an opposite temperature: it frequently occurs that the whole system undergoes a complete change, without the use of medicine. Persons afflicted with pulmonary and nervous diseases, should be careful to avoid the air of great towns or cities. Those who are unable to leave the city for any length of time, should frequently take excursions in the country or on the water.

TREES AND PLANTS.

Trees and plants are great purifiers of the atmosphere, and are conducive to health. They emit oxygen gas (the only vital portion of the air) during the day, while at night they imbibe and decompose it, and retain the carbonic acid gas or fixed air, the deleterious nature of which has been pointed out. By this we see how much they contribute to life and health. Let them, therefore, be nursed and cultivated, both for health and ornaments.

BURNING CHARCOAL.

The practice of burning charcoal to cook or to heat rooms has become very common, and many have lost their lives by the gas produced by it. The newspapers have lately recorded many cases where jars or vessels of

charcoal have been placed in cabins or rooms, and the persons sleeping in them have been killed. An account is given of two persons who lately lost their lives by burning charcoal in a vessel in this manner. It is not an uncommon, but a very dangerous practice, and not to be repeated.

PURE AIR IN DISEASE.

Pure air is essential to the best possible health of the system, and that just in proportion as the air we breathe becomes impure does it become unhealthy.

It is a universal law, and can never be violated with impunity. We see the effect of impure air in ill ventilated meeting-houses. It is not uncommon for persons to faint in consequence of inhaling this kind of air; in others it produces different effects. The ball-room and crowded party give rise to headache, indigestion, fainting, eruptions of the skin, general debility, &c. Houses, factories, school-rooms, hospitals, and every place where many meet, should be well ventilated. Man subsists upon the air more than upon his food and drink. Hence the necessity of having it pure.

A sensible writer on this subject thus observes: "If fresh air be necessary for those in health, it is still more so for the sick, who often lose their lives for want of it. The notion that sick people must be kept very hot is so common, that one can hardly enter the chamber where a patient lies, without being ready to faint, by reason of the hot suffocating smell. How this must effect the sick any one may judge. No medicine is so beneficial to the sick as fresh air. It is the most reviving of all cordials, if it be administered with prudence. We are not, however, to throw open doors and windows at random upon the sick. Fresh air is to be let into the chamber gradually, and, if possible, by opening the windows of some other apartment.

"The air of a sick person's chamber may be greatly freshened and the patient much revived, by sprinkling the floor, bed, &c., frequently with vinegar, juice of lemon, or any other strong vegetable acid.

"In places where numbers of sick are crowded into the same house, or, which is often the case, into the same apartment, the frequent admission of fresh air becomes absolutely necessary. Infirmaries, hospitals, &c., are often rendered so noxious for want of proper ventilation, that the sick run more hazard from them than from the disease. This is particularly the case when putrid fevers, dysenteries, and other infectious diseases prevail."

A number of persons lately lost their lives, by reason of the confined air on board of a ship, coming to this country from Europe.

CHAPTER V.

EXERCISE.

We may be very temperate in eating and drinking, and observe the best rules for the prevention of disease; yet, without a strict attention to exercise, we cannot enjoy good health.

In the curse pronounced upon our first Parents there is annexed a peculiar blessing; a circumstance so strikingly characteristic of Deity. It was pronounced upon Adam, "In the sweat of thy brow shalt thou earn thy bread."

In the very sweat produced by labour or exercise the blessing of health is found, which may be sought for in vain from any other source.

Says Dr. Thomas on exercise: The labourer is apt to murmur that he is necessitated to earn his bread by the sweat of his brow; and, looking round on his superiors, he repines at his condition and station, considering that as hard and afflicting which infinite wisdom has destined to be absolute, if not the only method by which he can be put in possession of the chief of all earthly blessings—a sound body and a quiet mind; for those whom poverty obliges to labour for their daily bread are not only the most healthy, but, all things considered, generally the most happy of mankind.

> "Toil, and be strong. By toil the flaccid nerves
> Grow firm, and gain a more compacted tone;
> The greener juices are by toil subdued,
> Mellow'd, and subtilized; the vapid old
> Expell'd, and all the rancour of the blood." *Armstrong.*

The industrious labourer, who is under the necessity of earning his daily sustenance by personal exertion, commonly enjoys good health; he eats his scanty meal with a good appetite, unassisted by provocatives, which his active and athletic body, by proper exercise, is soon enabled to digest; and at the return of evening he retires to undisturbed repose, where sound and uninterrupted sleep recompenses for his toil. Health makes his bed easy, and his wearied limbs, recruited by sound repose, fit him for the labour of the ensuing day. As his wants are few, he is nearly a stranger to care and solicitude; and his progeny are partakers with him in the same inheritance. On the other hand, the sluggard is exposed to a variety of temptations; and that indolence and inactivity are the source of much immorality, we may soon be convinced of by casting our eyes round the world. They also lay the foundation of many painful diseases, and at length the mind, as well as the body, dwindles into a state of torpor.

Indolence impedes the organic functions, undermines the fountains of health, and gradually, but invariably, leads to disease. Accordingly, we find that those persons who are obliged to labour for their livelihood are generally strangers to the gout and some other disorders, which may be considered as the offspring of good living and indolence.

There is no substitute which we can appropriate for the non-observance of this practice. Nothing so effectually prevents indigestion, and, consequently, strengthens the solids, as exercise; but unless it be duly and properly persevered in, and our bodies daily habituated to it, we cannot experience all that benefit which accompanies its use. In the formation of our frames, and from the nature of our constitution, it evidently appears to have been the positive intention of Providence to create in us, for our well-being, an absolute necessity for exercise. Our love of motion is surely a strong proof of its utility, and nature implants no disposition in vain. It seems, moreover, to be a law throughout the whole animal creation that no creature, without exercise, should enjoy health or be able to find subsistence.

Were men to live in an habitual course of exercise and temperance, there would be but little occasion for using medicines: accordingly, we find that those are the most healthy who subsist by the chase; and that men lived longest when their lives were employed in hunting, and had little food besides what they caught. It has been remarked that all those who have attained a very advanced age have undergone great labour and fatigue in their younger years; such was the case with Parr and Jenkins, the two oldest men on record.

By an attention to exercise, the tone and vigour of the body are very much

increased; the nervous energy, and also circulation of the blood, are materially accelerated; and this increased impetus of the blood through the whole system produces an effectual determination to the surface of the skin, and a free perspiration is the consequence. By the same means the body is disposed to sleep, the appetite is increased, the tone of the stomach and other organs concerned in the process of digestion preserved, and the blood is determined from the interior parts; thereby preventing as well as removing obstructions, and powerfully obviating any tendency to overfulness in the system.

Moreover, by exercise, the spirits are enlivened, as well as the body refreshed; and it is an undeniable truth that, where it is neglected, the strength and energy of the whole machine gradually fall to decay, and a morbid irritability is induced, with a long train of those unpleasant symptoms which usually accompany chronic weakness. The natural powers of the stomach and intestines sustain particular injury, the appetite is vitiated, and the bile and other fluids employed by nature in the process of digestion, are very imperfectly secreted, or, perhaps, considerably obstructed; the muscular fibres of the body become relaxed and debilitated; the whole animal economy is disordered; and a train of nervous and hypochondriacal symptoms, together with gout, apoplexy, palsy, glandular obstructions, and many other complaints incident to inactive, indolent, and sedentary persons, come on.

Nothing but regular and sufficient exercise in the open air can brace and strengthen the muscles and nerves, or prevent the endless train of diseases which proceed from a relaxed state of these organs. The active and laborious are seldom the subjects of nervous disease: these are the portions of the sons of affluence and ease. Riches, indeed, supply many indulgences, but they are, at the same time, accompanied by many evils; and thus are the good and bad things of this life pretty equally balanced.

Those who wish to enjoy health should use exercise as regularly as they take their food: they should walk a certain distance in the open air every day, or ride on horseback; and they will find it to their advantage to employ a portion of the day, besides, in gardening or some agricultural pursuit. The studious, and men of letters more particularly, are required to attend to these points; for, if study be united with a want of exercise, it infallibly proves injurious to health, and never fails to destroy the appetite and impair digestion; then costiveness, flatulency, crudities, headache, apoplexy, and palsy are the certain consequences. Exertion of the mind and inaction of the body, when carried to excess, are destructive of the most robust health. An alternate mixture of daily and sufficient exercise, business, and reading enables us to allow rest by turns to the body and the mind, and keeps the faculties in due equilibrium and in a state of progressive improvement.

To render exercise as beneficial as possible, it will be necessary that it be not too violent, and that moderation, both in eating and drinking, accompany it.

Active exercise soon after eating a full meal is likely also to be injurious: a state of quietude, therefore, for some time after dinner in particular, as being the principal meal with most persons, will be advisable; but, nevertheless, we should not indulge in sleep soon after eating. This custom some people practise, but it is an improper one.

Exercise certainly gives strength and energy to the body, but it should not be carried too far or continued too long, as it may then be productive of mischief instead of benefit. It should be gentle and moderate, and, when practicable, be taken in the open air. Another rule necessary to be attended to for rendering exercise advantageous is, that due care be taken that the

body, when heated, be not suddenly exposed to cold, either by subjecting it to currents of air or fresh breezes, or by drinking cold liquors of any kind. In warm climates exercise should always be taken in the cool of the day, particularly in the morning.

We may consider exercise of the body as of three kinds. First, that of simple muscular motion, consisting in walking, or such employments as call forth the exertion of the limbs—as cutting, splitting, and sawing wood, gardening, digging, hunting, playing ball, and the like, commencing very moderately, and increasing it as the strength will permit: secondly, that which is obtained by riding on horseback or in any kind of carriage; and, thirdly, that which may be given to the body by outward applications, such as frictions, either with the hand, a flesh-brush, or a piece of flannel.

Exercises of the first kind are highly beneficial when the bodily powers will admit of them, as the mind being occupied therein adds very materially to the advantages resulting from them; yet, on account of their being more fatiguing and laborious, there are many instances where they are scarcely admissible, in which case riding must be substituted in their stead. Of all the different species of exercise not taken on foot, that of riding on horseback is certainly entitled to the preference, if the person is capable of using it. In nervous affections of all kinds, but more particularly the hypochondriac, as well as obstructions in any of the internal organs, it is more likely to be beneficial than any other, from the parts being universally shook by it; and such persons ought to pass two or three hours every day on horseback, when the weather is not wet.

This kind of exercise is extremely favourable to the proper and equal distribution of the blood through the extreme vessels, and to the prevention of its undue accumulation in the central organs. From the tendency of riding to equalize the circulation, stimulate the skin, and promote the action of the bowels, it is well adapted as an exercise for the consumptive, dyspeptic, and nervous invalids.

Riding on horseback, says Sydenham, will cure all diseases except confirmed consumption.

Dyspeptic and other chronic invalids, says Graham, ought never to hope for health by any means without exercise.

Dancing does more harm than good; the room is heated, air injured by being repeatedly inhaled, dusty rooms, unseasonable hours, the body in great perspiration, then in cold air and suddenly checked, with thin shoes and dresses, with other evils which often lay the foundation for consumption and other fatal diseases.

Next to riding on horseback, a preference should be given to an open carriage of some kind or other, as a person has the advantage of continually changing the air and breathing it pure, the importance of which must be obvious, as well as beholding the diversity of scenery and country.

It now and then happens, however, that the motion of either a horse or a carriage, be the latter ever so expertly hung, is too much for the delicate frames of some invalids. In such cases easy exercise may be obtained by sailing in a small vessel or boat, at proper times of the day, when the weather is fine; but when not so, swinging in a cot or hammock, or riding on a hobby-horse, may be substituted. There is, perhaps, no better exercise for females within doors than the spinning-wheel.

A person who is prevented from taking exercise in the open air, by inclemency of the weather or other causes, should by no means remain in a continued state of inactivity; he should engage in some employment or

active amusement within doors. Where the taste and inclination extend to any mechanical pursuit, such as that of turning, &c., it ought to be indulged, but where they do not, what are called dumb bells may be substituted for a considerable space of time each day; or anything else, rather than take no exercise at all.

In cities the exercises which are most suitable to the habits of the people and their opportunities, are, for men, the practice of walking, playing ball, and the gymnastics which have lately been introduced, and which were in the highest estimation among the Greeks in former days, and to which, in a great measure, is to be attributed their fine, healthy, and efficient forms which have come down to us in their statues.

The third species of exercise which has been mentioned is that of frictions; and where the circulation is languid, and the motion of the other fluids sluggish, or there is an inability of muscular motion from any paralytic affection, these may be employed with much advantage; and, in the latter instance, still more so, if conjoined with electricity. Frictions may be made either with a piece of flannel, the flesh-brush, or simply with the hand; and the best time for employing them seems to be in the morning, at the time of rising from bed; for then the superfluous matter which is prepared for perspiration, is more readily brought to the surface of the body. Kneading the bowels daily is excellent to prevent habitual costiveness.

In every stage and state of life exercise is necessary for our welfare and health; and it is equally as requisite for those of the female sex as for the male part of the creation. By food our bodies may be nourished; but if not assisted by due exercise to carry on the digestion of it with advantage, and help in throwing off the superfluous humours by perspiration, we must unavoidably feel all the inconveniences of repletion and fulness in the blood-vessels, while at the same time the body will be afflicted with many painful diseases.

Indolence, moreover, not only occasions diseases and renders men useless to society, but promotes all manner of vice. Indolence, when indulged, gains ground, and at length becomes agreeable; hence many who were fond of exercise in the early part of life, become somewhat adverse to it when more advanced in years. This is the case with most gouty and hypochondriacal people, which, in a great measure, renders their diseases more untractable, if not incurable. Idleness may well be said to be the root of many evils; and I think we may safely allege, that, on the contrary, a life of activity and industry is not only the greatest promoter as well as preservative of health at all periods of our mortal existence, but likewise one of the best guardians of virtue.

No piece of indolence hurts the health more than the modern custom of lying abed too long in the morning. This is the general practice in great towns. The inhabitants of cities seldom rise before eight or nine o'clock: but the morning is undoubtedly the best time for exercise, while the stomach is empty and the body refreshed with sleep. Besides, the morning air braces and strengthens the nerves, and in some measure answers the purpose of a cold bath. Let any one who has been accustomed to lie abed till eight or nine o'clock, rise by five or six, spend a couple of hours in walking, riding, or any active diversion without doors, and he will find his spirits cheerful and serene through the day, his appetite keen, and his body braced and strengthened. Custom soon renders early rising agreeable, and nothing contributes more to the preservation of health.

Every one knows that exercise favours, and indolence obstructs, the deve

lopement of animal heat. Exercise produces its effect by the general stimulus which it gives directly to the respiratory and circulating systems, and indirectly to the nervous and digestive portions.

In exercise let nature be consulted and facts attended to. It is notorious, says an English author, that a majority of those girls who, in opposition to the laws of nature, are encased in stays, and get insufficient exercise, become deformed and otherwise diseased; an occurrence very rare in boys, who are permitted freely to follow nature in muscular action. In a seminary for young ladies, for example, containing forty pupils, on examination by Dr. Forbes, only two had straight spines; while out of an equal number of boys little or no deformity could be found. Yet such is the dominion of prejudice and fashion, that these evils continue; and on the same principle that Chinese parents compel the feet of their infants to be squeezed into a machine till they are most horribly deformed. When will mankind be governed by wisdom in all things? Never, till christianity becomes triumphant.

Exercise should exert an influence on the whole body, upper as well as lower part; and such kinds should be taken as animate and exercise the mind, which, by increasing the nervous stimulus, makes exertion easy, pleasant, and invigorating.

In a new work just published in Philadelphia, entitled "Health and Beauty," the following, among other instances, is given to illustrate the utility of exercise in developing strength and muscle:

"When three years of age the subject of this brief history could scarcely stand; at five he walked badly, and supported by leading strings; and it was only after dentition, at seven years old, that he could walk without assistance: but even then he fell frequently, and could not rise again. Given up by the physicians, he continued in this state till the age of seventeen, when the loins and lower extremities could scarcely support the upper part of his body. The arms were extremely weak and contracted, the approximation of the shoulders diminished the capacity of the chest and impeded respiration, the moral faculties were quite torpid, and, "in short, nature was at a stand still." In the month of November, 1815, this unfortunate youth was presented to Mr. Clias, the celebrated superintendent of a gymnasium, then at Berne, in Switzerland, as he afterward was of others in Paris and in London. On being admitted his strength was tried, and his pressure on the dynamometer was only equal to that of children seven or eight years of age. In ability to pull, ascend the ladder, and jump, he was utterly deficient He ran over the space of a hundred feet, with great difficulty, in a minute and two seconds, and could not stand when he had finished. Carrying a weight of fifteen pounds made him totter, and a child of seven years old threw him with the greatest facility.

"A person of the other sex, thus enfeebled, would be thought, by a committee of crones and mantua-makers, to whom probably she would be consigned, to require, of absolute necessity, the *support* and *comfort* of corsets and busks. Her physician would prescribe tonics and sea bathing, and a generous regimen; no bad things in their place, and with suitable hygienic aids; but quite unfitted to prevent the increasing debility and superadded deformity from the use of exercise. But to return to the poor feeble youth. Was any effort made to strengthen his back by compression of its muscles, or to take off from the weight of his head and chest by various mechanical contrivances? Captain Clias did not put faith in the doctrine, that, to give muscles strength, they must not be used at all; but he believed that the feeble imperfectly

developed ones of this young invalid might be made to grow and acquire strength on the same principle as that by which the legs of a dancer and a porter, and the arms of bakers and boatmen become full, muscular, and strong. His scholar was subjected to the gymnastic regimen for five months; after which period he could press fifty degrees on the dynamometer; by the strength of his arms he raised himself three inches from the ground, and remained thus suspended for three seconds; he leaped a distance of three feet, ran a hundred and sixty-three yards in a minute, and carried on his shoulders, in the same period of time, a weight of thirty-five pounds. Finally, in 1817, in the presence of several thousand spectators, he climbed to the top of a single rope, twenty-five feet high; he did the same exercise on the climbing pole; jumped, with a run, six feet; and ran over five hundred feet in two minutes and a half. Subsequently, when he became a clergyman, in a village near Berne, he could walk twenty-four miles on foot without incommoding himself; and the exercises, which he always continued, have given him, in place of his valetudinary state, a vigorous constitution."

Females are so confined by domestic labour that they seldom have much exercise in the open air, which is calculated to make them sickly; besides, they are in general so over-burdened with work that their constitutions often become broken by over-exertion, and hence experience little besides care, vexation, and ill health—the accompaniments of such habits. They are made slaves either from necessity or choice; and mostly from the latter. Now, this is wrong, and was never intended by our Creator; and, to obviate it, they should obey the command of the apostle, "be careful for nothing," and simply attend to those duties which are indispensably necessary, and, if too great, procure assistance. As regards exercise, females should make it a part of their duty to labour as much as possible in the open air, and, instead of sitting so much, exercise the whole body in some manner; if no other way, by walking or riding daily; and in the summer season they should work at least two hours in the kitchen or the flower-garden every day. Even the practice of the Indian women excels us in this respect. How much has civilization done for us?

CHAPTER VI.

CLOTHING.

Those who wish to pay a due regard to their health, must attend to their clothing It should be adapted to the climate, the season of the year, age, &c.

CLIMATE.

The principal object of clothing is, to preserve a right temperature of the body. Hence persons in very cold climates require much more clothing than those in warm. Custom or habit, however, has a great influence. The natives of this country live throughout the most rigorous winters almost without any clothing, while we apparently experience more suffering with a very great quantity of clothing.

AGE.

Youth, in consequence of the rapid circulation of the blood, requires less clothing than middle and old age.

SEASON.

The dress should be adapted to the season of the year, as every one knows that winter requires much more clothing than summer. But the greatest caution is necessary to make the change very gradually. Woollen garments should be put on early in the fall, and worn late in the spring. This is the more necessary, by reason of the sudden and great changes of our climate: one day the thermometer rises to a hundred, the next it sinks to forty; which racks the constitution, and proves very destructive to health. These vicissitudes must be guarded against by proper clothing, which should never be very thin, even in midsummer.

FASHION AND FIGURE.

More consequence is now attached to figure and form than to health and convenience. Persons must dress fashionable, no matter how *ridiculous* or dangerous it may prove. Hence fashion and shape are continually changing, without regard to health, climate, or comfort. In order to *reduce* the body to a *fine shape*, the stomach and bowels are *squeezed* into as narrow a compass as possible. By this reprehensible practice indigestion, fainting, coughs, consumption, and other complaints are produced.

BANDAGING, ETC.

Garters, when drawn too tight, not only prevent the free motion and use of the parts about which they are bound, but likewise obstruct the circulation of the blood, which prevents the equal nourishment and growth of these parts, and occasions various diseases. Tight bandages about the neck, as stocks, cravats, necklaces, &c., are extremely dangerous. They obstruct the blood in its course from the brain, by which means headaches, vertigoes, apoplexies, and other fatal diseases are often occasioned.

QUANTITY OF CLOTHING.

A judicious physician, in speaking upon this subject, has the following excellent remarks: "Robust persons are able to endure cold better than the delicate, and, consequently, may clothe lighter; but the precise quantity of apparel which may be necessary for any person cannot be determined by reasoning. it must be entirely a matter of experience; and every person is the best judge for him or herself, what quantity of clothes is necessary to keep him or her sufficiently warm and comfortable. The state so nearly approaching to absolute nudity, in which fashionable females now make their appearance in public, is not only highly indecent, but must be very destructive of their health and personal comfort.

"While treating on clothing, I would recommend to every person to be careful in observing that their clothes are properly dried previous to being put on. This precaution will be particularly necessary in the winter months, as washer-women are then obliged to dry chiefly by the heat of a fire, and

this is apt to be very imperfectly done. Many lives are annually sacrificed by persons putting on damp linen, as well as by sleeping in sheets not properly dried.

"Due care should be taken to change the stockings and other clothing as speedily as possible after their becoming wet by any exposure to inclement weather, rain, snow, &c. Many persons are so imprudent as to neglect this very necessary change, and to suffer their clothes, after such an exposure, to dry on them, assisted probably by going near a fire for some time; but such a practice is always attended with risk, and not unfrequently gives rise either to rheumatism, fever, pleurisy, cough, consumption, or some other disease of a dangerous or even fatal nature."

KIND OF DRESS.

I shall say but little upon the *kind* of clothing that ought to be worn, but leave this part of the subject to the good sense of the reader to determine. I would merely add, that such articles must be used as will render the temperature of the body as uniform as possible, by keeping up a due degree of perspiration. Nothing contributes more to this than flannel.

A very ingenious philosopher, (Sir Benjamin Thompson,) by a variety of experiments on the relative power of absorbing moisture from the atmosphere in different substances—as wool, fur, hair, silk, cotton wool, and linen—has found, contrary to what was supposed would be the result, that woollen cloth absorbed most of these substances, and linen the least; and hence this gentleman justly infers the vast advantage of a flannel waistcoat next the skin: and, from personal experience and accurate analogy, he concludes that it would prevent a multitude of diseases; and as it promotes evaporation, instead of being too hot for summer, he found no inconvenience from it in the hottest weather, as it is well known that evaporation produces positive cold: hence probably it is that the East Indians find cotton shirts and shifts to be more comfortable than linen.

Females of a delicate constitution really require some under clothing in addition to what is usually worn; and I would, therefore, recommend them drawers or sliders of flannel. Some persons, particularly invalids, may wear flannel throughout the year.

Says a writer in Dr. Cooke's Medical Reformer: "The principal advantage in the use of flannel is its non-conducting property of sensible heat; it is, therefore, well calculated to protect the body against the too rapid escape of this important fluid.

"Flannel should be used whenever it will be proper to accumulate heat, or to prevent its too rapid dissipation from the body; it should, therefore, be used precisely in the proportion which these ends may require. But it will be readily seen that no precise quantity can be directed, since the degree of necessity will be constantly varying as temperature may alter or as constitution and period of life may change.

"There is another operation of flannel that is highly valuable, especially in this variable climate; and its agency in this respect may be considered as one of almost indispensable necessity—it is its protecting power against sudden reductions of temperature. By virtue of its non-conducting power, the system is saved from a prodigious expense of caloric, or heat, at a time when its sudden escape might be attended with effects of the most serious kind; the advantages of flannel in this respect are familiar to everybody; for everybody adopts the practice, without exactly understanding the principle on

which it is founded. It powerfully guards the body against the cooling effects of evaporation when in a state of perspiration; and, by preventing a too sudden escape, it keeps a considerable portion of heat constantly applied to the surface of the skin, by means of this vapour, and thus hinders it from leaving the body too suddenly." For obvious reasons, it is very necessary that it should be washed often.

I think it is much better to wear flannel over the shirt than next to the skin. It is certainly more pleasant, and, besides, it seems to maintain a more uniform and equal heat of the body. I have proved this by many years of experience; and I have just learned that the late Professor Smith, of New Haven, advanced the same opinion. A flannel waistcoat early in the fall, and, as the weather grows colder, flannel drawers, should be worn; and they should be discontinued in the same order of time: by this course the transition from one extreme to the other is not so great. It is better to wear cotton next to the skin than linen, as the latter, when moistened with perspiration from great heat or exercise, gives a sense of chilliness as the body cools; whereas cotton, by its absorbing properties, prevents any such effects.

Flannel, by all means, should be taken off at night, otherwise the skin becomes too much accustomed to its stimulus, and its beneficial effects in some degree lost. If flannel is worn at night, the system becomes more susceptible of cold after rising from bed and being exposed to the atmosphere. Flannel should be worn during the day, to defend the system from a sudden contact of cold, which it does admirably, by absorbing perspirable matter, and thereby preventing too sudden evaporation; and in this manner a uniform temperature is maintained.

Imprudent persons have lost their lives by taking off their flannel too early in the spring, merely because a day or two of warm weather commenced, which rendered it a little unpleasant. If it is not worn constantly, it should at least be continued till the beginning of summer, and again put on by the first of September—especially in this latitude.

In the sultry days of summer every precaution should be taken that the body be not suddenly exposed to cold when overheated by exercise, by throwing off a portion of the clothing, as is customary with many.

It is lamentable to see the great departure there is now from the former modes of dress, as well as in other respects. Our ancestors were in the practice of dressing very warm and comfortable—stout cloaks, thick shoes, &c.—and they, in consequence, were healthy. In these days it is the reverse. By the present mode or fashion in dress thousands of females are injured, if not killed.

In concluding this chapter, I will quote the remarks of Buchan on this subject. "Nothing," says he, "can be more ridiculous than for any one to make himself a slave to fine clothes. Such a one, and many such there are, would rather remain as fixed as a statue from morning till night, than discompose a single hair or alter the position of a pin. Were we to recommend any particular pattern for dress, it would be that which is worn by the people called Quakers. They are always neat, clean, and often elegant, without anything superfluous. What others lay out upon tawdry laces, ruffles, and ribands, they bestow upon superior cleanliness. Finery is only the affectation of dress, and very often covers a great deal of dirt."

The remarks of the celebrated Cobbett on dress occurs to me, and, although not immediately connected with the preservation of health, affords a useful lesson. "Let our dress be as cheap as may be without shabbiness; attend more to the colour of your shirt than to the gloss or texture of your coat;

be always clean as your situation will, without inconvenience, permit ; but never, no, not for one moment, believe that any human being with sense in his skull, will love or respect you on account of your fine or costly clothes."

CHAPTER VII.

CLEANLINESS.

Those who wish to preserve their health, must strictly attend to cleanliness : few things are of more importance to society, and should be attended to everywhere, among all classes. By reference to Deuteronomy, chapter 22, 12th and 13th verses, it will be seen that the Jews, during their encampments in the wilderness, received particular instructions with respect to it, and these instructions ought to be obeyed by every one. It appears that the whole system of laws delivered to that people had a tendency to promote cleanliness.

In the most eastern countries cleanliness makes a great part of their religion. Mahometan, as also as the Jewish, religion enjoins various bathings, washings, and purifications.

Although these might be designed to represent inward purity, yet, at the same time, they are calculated for the preservation of health. It is rightly said, that the want of cleanliness is a fault which admits of no excuse ; for where water can be had for nothing, it is in the power of every one to be clean.

The continual discharge from our bodies by perspiration renders frequent change of apparel necessary. Changing apparel greatly promotes the secretion from the skin, so necessary for health. When that matter which ought to be carried off by perspiration, is either retained in the body or reabsorbed from dirty clothes, it must occasion diseases.

DISEASES OCCASIONED BY THE WANT OF CLEANLINESS.

Many complaints are caused by want of cleanliness. Fevers, dysenteries, and diseases of the skin often arise from filth, and they may be mitigated or cured by a strict regard to cleanliness.

FILTHY PERSONS AND APARTMENTS.

It is well known that the itch and vermin attack those whose apartments and persons are filthy, by which they become a common nuisance. Some of the habitations of the lower classes of persons, particularly of our cities, are so dirty that the most disagreeable and fœted effluvia is emitted from them. If such persons are too indolent to remove the filth about them, ought not magistrates to interfere, and cause it to be done ?

FILTHY CITIES AND STREETS.

Some cities are almost proverbial for their filthiness, and I know of none more so than the city of New York, notwithstanding the great sums that are paid for the purpose of keeping it clean. While the most popular streets are kept clean, there is such a stench arising from others, that a person, in passing

them, is often obliged to suspend the functions of his lungs, or, in other words, obliged to "hold his breath." What effect such deleterious gases must have upon the health I leave the reader to judge.

The same filthiness exists around our markets, docks, &c. If our corporation have not ingenuity enough to keep our streets and docks clean, I will mention a method that is infallible, which is practised in some of the great cities of Europe; a method which renders the streets so perfectly clean, that every traveller is forcibly impressed with it; and it is this: There are a sufficient number of scavengers, or men, to only a small portion of a street, and the overseer or superintendent sees that every particle of filth and dirt which is there accumulated is not only scraped and swept into a pile, but likewise removed; and if every other day is not sufficient to keep it clean, it is done daily. By this means every street in the city is perfectly sweet and clean. It is true, the expense may be a trifle more, but what is this compared to the health of our citizens!

A writer has the following judicious remarks upon this subject:

"In many great towns the streets are little better than dung-hills, being frequently covered with ashes, dung, and nastiness of every kind. Even slaughter-houses are often to be seen in the very centre of great *cities*. The putrid blood, excrements, &c., with which these places are generally covered, cannot fail to taint the air and render it unwholesome. How easily might this be prevented by active magistrates, who have it always in their power to make proper laws relative to things of this nature, and to enforce the observance of them!" Most of the abominable and filthy slaughter-houses in New York are in the midst of a dense population.

"Whatever pretensions people may make to learning, politeness, or civilization, we will venture to affirm, that, while they neglect cleanliness, they are in a state of barbarity.

"In ancient Rome the greatest men did not think cleanliness an object unworthy of their attention. Pliny says, the *Cloacæ*, or common sewers for the conveyance of filth and nastiness from the city, were the greatest of all public works; and bestows higher encomiums upon Tarquinius, Agrippa, and others who made and improved them, than those who achieved the greatest conquests.

"How truly great does the Emperor Trajan appear when giving directions to Pliny, his proconsul, concerning the making of a common sewer for the health and convenience of a conquered city!

"As it is impossible to be thoroughly clean without a sufficient quantity of water, we would earnestly recommend it to the magistrates of great towns to be particularly attentive to this article. Most great towns and cities are so situated as to be easily supplied with water; and those persons who will not make a proper use of it after it is brought to their hand, certainly deserve to be severely punished. The streets of great towns, where water can be had, ought to be washed every day. This is the only effectual method of keeping them thoroughly clean; and, upon trial, we are persuaded it will be found the cheapest."

Some of the most dreadful diseases incident to human nature might, in my opinion, be entirely eradicated by cleanliness.

PERSONAL CLEANLINESS.

"Personal cleanliness," says a writer, "is chiefly effected by a frequent change of dress, but is much increased by ablutions of different parts of the

body daily with water. Of these the head, face, and mouth, as well as the hands and feet, claim our attention. From neglecting to keep the mouth, teeth, and breath properly cleaned, the breath is apt to acquire a disagreeable taint. The teeth ought, therefore, to be cleansed after every meal, as the refuse of the food naturally settles about them, and, in consequence of heat, rapidly becomes more putrid, and in this state proves injurious to them as well as the gums. Every morning the tongue should be cleansed, and the throat be well gargled and washed out with water.

"The teeth are apt to become incrusted with tartar, which in time very much injures the enamel with which they are coated externally: it should not, therefore, be suffered to collect, but be removed from time to time. They should be washed every morning with a small piece of sponge, or very soft brush, dipped in cold water, joining occasionally the powder of fresh prepared charcoal. If any of the teeth have a tendency to caries or rottenness, or the gums are spongy and bleed, the mouth may be washed with the tincture of myrrh.

"Attention to the feet is also very necessary, particularly in warm weather, and with those who, from a peculiarity of constitution, have them very moist. The perspiration proceeding from them in hot weather, and after much walking, emits a very disagreeable smell: they ought, therefore, to be frequently washed. Great cleanliness by daily ablutions of the feet, and the change of stockings, are not only the most convenient, but the most salutary means of preventing all unpleasant odours."

The most rigid cleanliness must also be observed during sickness. The clothes of the person must be frequently changed, everything offensive removed, and the apartment must be kept perfectly clean.

Mechanics, and those who are under the necessity of working where there is constant dirt and filth, ought to wash themselves and change their clothing as often as possible. They should frequently bathe, both in the summer and the winter season.

I shall here quote the remarks of Mr. Jefferson, to show the great benefit derived from frequently bathing the feet, as well as to show the great advantage derived from an observance of the preceding rules and maxims on health.

"I have lived temperately, eating little animal food, and that not as an aliment so much as a condiment for the vegetables, which constitute my principal diet. I double, however, the doctor's glass and a half of wine, and even treble it with a friend; but halve its effects by drinking weak wines only. The ardent wines I cannot drink, nor do I use ardent spirits in any form. Malt liquors and cider are my table drinks, and my breakfast is of tea and coffee. I have been blest with organs of digestion which accept and concoct, without ever murmuring, whatever the palate chooses to consign to them; and I have not yet lost a tooth by age. I was a hard student until I entered on the business of life, the duties of which leave no idle time to those disposed to fulfil them; and now, retired, and at the age of seventy-six, I am again a hard student. Indeed, my fondness for reading and study revolts me from the drudgery of letter writing; and a stiff wrist, the consequence of an early dislocation, makes writing both slow and painful. I am not so regular in my sleep as the doctor says he was, devoting to it from five to eight hours, according as my company or the book I am reading interests me; and I never go to bed without an hour or half an hour's previous reading of something moral, whereon to ruminate in the intervals of sleep. But whether I retire to bed early or late, I rise with the sun. I use spectacles at night, but not necessarily in the day, unless in reading small print. My

nearing is distinct in particular conversation, but confused when several voices cross each other, which unfits me for the society of the table. I have been more fortunate than my friend in the article of health: so free from catarrhs, that I have not had one (in the breast I mean) on an average of eight or ten years through life. I ascribe this exception partly to the habit of bathing my feet in cold water every morning, for sixty years past. A fever of more than twenty-four hours I have not had above two or three times in my life. A periodical headache has afflicted me occasionally, once, perhaps, in six or eight hours, for two or three weeks at a time, which seems now to have left me: and, except on a late occasion of indisposition, I enjoyed good health; too feeble, indeed, to walk much, but ride without fatigue six or eight miles a day, and sometimes thirty or forty."

CHAPTER VIII.

SLEEP, EARLY RISING, ETC.

"For the purpose," says Dr. Thomas, "of recruiting the waste daily produced in the human body, and enabling it to perform every function properly, nature has wisely and beneficially determined that an adequate renovation should succeed this exhaustion, by alternate periods of sleep and watching.

"An insufficient quantity of sleep exhausts the spirits and produces headache, anxiety of mind, and moroseness of temper; moreover, it debilitates the nervous system. On the contrary, too great an indulgence in sleep is also injurious, as the muscular motions are thereby debilitated, the nerves and other fibres become relaxed or torpid, and a state of indolent stupidity supervenes, which is not thrown off the whole day; added to which, that sprightliness of life and vivacity are wanting which are usually the consequences of early rising. It is evident, therefore, that sleep requires some regulation as well as our diet. A habit of retiring soon to rest and of rising early appears to be very favourable to the developement of the powers and the preservation of health. Those who lie half of the day in bed become effeminate and enervated, and they soon lose that activity which, properly directed, can alone confer value on life.

"It would appear that six hours' sleep every night is sufficient for any adult person during the summer, who is in health, and in winter about seven, or, at the most, eight. Those who indulge for nine or ten hours in bed are commonly wakeful or restless during the fore part of the night; and, when they ought to rise, sink to rest and slumber on till noon, by which imprudent conduct even the strongest constitution will eventually be injured.

"Nothing, however, more certainly destroys the constitution than that of sitting up a great part of the night and lying in bed the pleasantest and most healthy part of the day, as is too much the custom with those who lead a fashionable life, thereby converting night into day and day into night. This plan of proceeding is sure to injure the health of its votaries and to shorten the natural period of life, and it will undermine the strongest constitution, even if accompanied with habits of regularity in other respects; but how much more destructive must its effects be when conjoined with intoxication, gambling, sensuality, and other midnight excesses! Persons of athletic bodies may probably bear up for a time under late hours and intemperance;

but the delicate and weak must unavoidably fall very soon martyrs to such indiscretions.

" It is, indeed, melancholy to observe, among the votaries of fashion and dissipation, the ill effects produced on their constitutions by their midnight revels. Let any person view their pallid countenances, where colour is not resorted to, as well as their ghastly forms, and they will be well satisfied that inverting the established order of things, by turning night into day, soon robs the blooming cheek of its roses and lilies, brings on early decay in process of time, and destroys the most vigorous frame.

" We should avoid sleeping in those apartments where we live during the day, and for a bed-chamber make choice of a spacious room exposed to the sun, and can have the windows opened in the day-time for the admission of pure air and the dispersion of vapours collected during the night. To secure ourselves from the effects of a vitiated atmosphere, we ought also to take care that the beds are well shaken up every morning ; and that these, as well as the bed-clothes, are freely exposed, for a due length of time, to the air.

" Children may always be allowed to take as much sleep as they please, but it is a very different case with adults of a youthful age. Quietude and repose best, however, become the constitutions of those who are far advanced in years, since the springs of life in them are rather weakened than invigorated by excessive action and want of sufficient sleep.

" The best way of making sleep refreshing is, to take proper exercise through the day ; to avoid strong infusions of tea or coffee in the evening ; to make a very light supper at least an hour or two before retiring to rest, where such a meal is indispensably necessary ; to go early to bed ; to lie down with a mind as serene and cheerful as possible, placing the body in the position which is most congenial to the feelings and habits of the individual ; and to rise betimes in the morning—for it has been observed that the most of those who have attained a great age, have generally been early risers. It must, however, be understood that, although early rising and activity are conducive to health, they should, nevertheless, be regulated by the state of bodily strength, the season of the year, and the habitual exertions of the mind.

" Too much exercise will prevent sleep as well as too little. We very seldom hear, however, of the active and laborious complaining of restless nights : it is the indolent and slothful who are generally incommoded with these complaints. The labourer enjoys more real luxury in sound sleep and plain food than he who fares sumptuously and reposes on downy pillows, where due exercise is wanting.

" Light suppers are also necessary to sound sleep ; and many there are who experience uneasy and restless nights, if they commit the least excess at that meal ; and when they do fall asleep, the load and oppression on their stomach occasion frightful dreams, the night-mare, broken and disturbed rest.

" Those who follow intellectual pursuits with immoderate ardour, exhaust their powers, and speedily are visited by premature old age. Shun, therefore, close meditation and intense study by nights.

" Anxiety of mind and intense thinking are almost certain to prevent sound sleep ; and, therefore, we should endeavour to preserve tranquillity of mind, and banish anxious thoughts as much as possible, when we retire to rest, calling in the aid of philosophy to bear with due fortitude and resignation those ills which we cannot prevent.

" He that goes to bed early at night will, in general, be desirous of rising

betimes in the morning: moreover, he that accustoms himself to an early hour for retiring to rest, can rarely join in Bacchanalian revels or in the fashionable dissipations of high life: his sleep is not disturbed by the effects of unseasonable luxury; his slumbers are sound and refreshing; and he rises with cheerfulness and fresh acquired vigour to breathe the morning air and commence the duties of the day."

CHAPTER IX.

OCCUPATIONS.

It is well known that certain kinds of business materially injure the health. Every kind which requires confinement and little motion, exerts a baneful influence on the system, such as shoe-makers, tailors, mantua-makers, &c.

Many are injured by the air of some occupations being impregnated with certain deleterious matters—type-founders, printers, stone-cutters, millers, chemists, forgers, glass-blowers, miners, and other artists, painters, gilders, manufacturers of white and red lead, &c. The persons last-mentioned should frequently take a dose of olive oil or castor oil, to prevent the painter's cholic.

Sedentary and studious persons are very liable to have their health impaired by continuing too long in one position, or for the want of proper exercise.

Watch-makers, in consequence of their sedentary habits, are liable to a peculiar species of disease, to which many of them fall victims. Its commencement is indicated by deficient appetite and eructations of wind from the stomach: there is also sallowness of complexion and a muddy yellow appearance of the eyes. In the progress of the disease great quantities of black coagulated blood is discharged by stool, and occasionally by vomiting. On dissection, the whole intestinal canal is found replete with blood, either fluid or black and coagulated. The liver and spleen appear soft, and, as it were, rotten. In its more early stages this disease admits of being checked by active purgatives, exercise, and country air.

Dr. Buchan gives the following judicious advice to persons of this description, and those who lead a sedentary life:

"Instead of multiplying rules for preserving the health of the sedentary, we shall recommend them to the following general plan, viz.: That every person who follows a sedentary employment should cultivate a piece of ground with his own hands. This he might dig, plant, sow, and weed at leisure hours, so as to make it both an exercise and an amusement, while it produces many of the necessaries of life. After working an hour in a garden, a man will return with more keenness to his employment within doors than if he had been all the while idle.

Cultivating the ground is every way conducive to health. It not only gives exercise to every part of the body, but the very smell of the earth and fresh herbs revives and cheers the spirits, while the perpetual prospect of something coming to maturity delights and entertains the mind. We are so formed as to be always pleased with somewhat in perspective, however distant or however trivial; hence the happiness that most men feel in planting, sowing, building, &c. These seem to have been the chief employments of the more early ages; and, when kings and conquerors cultivated the ground,

there is reason to believe that they knew as well wherein true happiness consisted as we do."

It may seem romantic to recommend gardening to manufacturers in great towns; but observation proves that the plan is very practicable. This practice has many salutary effects; it not only induces these people to take exercise without doors, but also to eat many greens, roots, &c., of their own growth, which they would never think of purchasing.

Mechanics are too much inclined to crowd into great towns. The situation may have some advantages; but it has likewise many disadvantages. All mechanics who live in the country have it in their power to cultivate a piece of ground; which, indeed, most of them do. This not only gives them exercise, but enables them to live more comfortably: so far at least as my observation extends, mechanics who live in the country are far more happy than those in great towns, enjoy better health, and live in greater affluence.

In a word, exercise without doors, in one shape or another, is absolutely necessary to health. Those who neglect it, though they may for a while drag out life, can hardly be said to enjoy it. Weak and effeminate, they languish for a few years, and soon drop into an untimely grave.

Intense study is so destructive to health, that few instances can be produced of studious persons who are strong and healthy. Hard study always implies a sedentary life; and when intense thinking is joined to the want of exercise, the consequences must be injurious. We have frequently known even a few months of close application to study ruin an excellent constitution, by inducing a train of nervous complaints which could never be removed. Man is evidently not formed for continual thought more than for perpetual action, and would be as soon worn out by the one as by the other

So great is the power of the mind over the body, that, by its influence, the whole vital motions may be accelerated or retarded to almost any degree. Thus, cheerfulness and mirth quicken the circulation and promote all the secretions; whereas sadness and profound thought never fail to retard them. Hence it would appear that even a degree of thoughtlessness is necessary to health: indeed the perpetual thinker seldom enjoys either health or spirits; while the person who can hardly be said to think at all, generally enjoys both.

Perpetual thinkers, as they are called, seldom think long. In a few years they generally become quite stupid, and exhibit a melancholy proof how readily the greatest blessings may be abused. Thinking, like everything else, when carried to extreme, becomes a vice; nor can anything afford a greater proof of wisdom than for a man frequently and seasonably to unbend his mind. This may generally be done by mixing in cheerful company, active diversions, and a change of scenery.

I would recommend to merchants, clerks, and all classes of citizens who are very much confined, to rise very early, and as often as possible to walk or ride into the country.

Were it early made a grave and important question, to what employment among the more useful employments of life is this girl or that boy best adapted by his native temperament and general constitution of mind and body—and were the advice which true medical wisdom, joined to parental intelligence and impartial investigation, would dictate, to be practically regarded, we should not see so many of our females dying of consumption from breathing the bad air of factories, when they ought to have been bred to housework; nor so many of our sons dying in shops, schools, and colleges.

or under the weight of professional responsibilities too early assumed, when an education to agriculture or the mechanical arts would have saved them, and given to them, for the benefit of the world, a long life of usefulness.

CHAPTER X.

TRANSITIONS FROM HEAT TO COLD.

Most of our diseases arise from a sudden transition from heat to cold. The sudden application of cold to the body in a state of perspiration cannot but be fraught with danger. The pores become closed, perspirable matter retained, which proves a source of irritation to the system, and soon terminates in a departure from health; and this is generally brought about by a sudden transition from a high to a low degree of temperature. The system is capable of undergoing an intense degree of cold, when it is *gradually* brought under the influence of it; but when it is *suddenly* applied, such a shock is given to the body that it rarely escapes without receiving injury; from which we may infer the great necessity of care and caution against sudden transitions from heat to cold. A sensible writer thus remarks upon this subject:

"By cold air the human body is considerably contracted and rendered more compact; which is very obvious, by observing that the same clothing which in summer sits tight, will, in the winter, be too large. In proportion, therefore, as the external heat is diminished, it would appear nature intended that the internal heat should be increased thereby. In winter the blood is much disposed to inflammation; and, becoming in some measure obstructed in its passage through the lungs, produces coughs, pleurisy, inflammation of the organs of respiration, rheumatism, and inflammatory sore throat. By paying attention, however, to a proper degree of clothing, and taking particular care that a due proportion of exercise be not neglected, cold may be rendered less hurtful to the body, and the risk of incurring these dangerous complaints in a great measure be obviated.

The effects of extreme cold are, however, sometimes destructive to the human frame, as in northern countries persons have been known to drop down suddenly, and be deprived of life without any previous symptoms of disease. The loss of various parts of the body in persons of the most healthy constitution, by the effect of extreme cold, is well known. The toes, fingers, lips, and nose are frequently so far exposed to its effects as to induce a mortification in these parts.

There is no change throughout nature more pernicious, either to animal or vegetable bodies, than from extreme heat to intense cold, or from freezing to sudden thawing, and the opposite of these. Hence it has been observed, that irritating coughs are never so prevalent as when there are sudden alterations of the weather, and when the air, after having been very cold, suddenly becomes warm and damp, and after that assumes a considerable degree of coldness again. These transitions occasion a smaller quantity of matter to be thrown off by perspiration, and the lodgment of a greater proportion of fluids upon the internal parts, which become loaded and obstructed; hence catarrhs, diarrhœa, and many other diseases.

When an ordinary change of external temperature is made gradually, such

is the constitution of the healthy human frame that it bears it with impunity; but when it happens more rapidly, danger arises proportioned to the suddenness of the event.

The most dangerous, however, of all, are those rapid and violent fluctuations which arise from the artificial modes of influencing temperature by the close rooms and fires of refined life, as also by the clothing. There are many thoughtless persons who will rush out into the freezing air from a room heated to the temperature of India, or, after having been warmly clad through out the day, will go out into the cold damp air of night in the flimsy dress of a ball-room, with their bosoms uncovered and their necks and shoulders perfectly bare; for such is the prevailing fashion among women nearly of all ages. They are never *more dressed*, according to their ideas, than when thus equipped for some place of amusement, although, in fact, they very nearly approach a state of nudity. It is by such imprudences, and the changes of temperature to which they become liable, that so many thousands are annually cut off by one disease or another, but particularly by pulmonary consumption.

But we are now so accustomed to hear of colds, coughs, consumptions, rheumatism, and a long train of other diseases of a similar nature, that we have almost been brought to consider them as necessary attendants of our situations, the unavoidable scourges of our climate and land, the existence of which we may deplore, but against which it is almost useless to employ any precaution. It is a positive fact, however, that most of our winter maladies derive their origin from sudden and considerable vicissitudes of temperature, and may, perhaps, be avoided by paying due attention to the following rule, viz. "To keep the temperature of the atmosphere which surrounds us as uniform as possible, and when a change is unavoidable, to make it gradually, and not suddenly. A due regard should, therefore, be paid to our clothing and management in other respects, on quitting our houses or coming out of any crowded place of public resort in cold weather. Persons of a delicate constitution will find it much to their advantage to pay attention to the changing of their clothes, according to the vicissitudes of the season, or even, indeed, to those of the same day, proportioning not only the quality, but the quantity thereto.

As our bodies are readily acted upon by every sudden change of weather, as from heat to cold, and the reverse of this, every precaution should be taken, for the purpose of preventing any sudden check to perspiration; and it should be a fixed rule to avoid all rapid transitions from one extreme to another, and never to remove from a room which is highly heated, to a cold air or fresh breeze, while the body remains warm, or till the necessary change by additional clothing has been previously made. If, at any time, the body should be greatly heated during the warm weather, it will be sure to suffer by going into a cellar, ice-house, or cold bath, or even by sitting on cold stones or ground that is damp. Severe colds, pulmonary consumption, rheumatism, and many other maladies of a severe nature, have been brought on by such imprudence, and even speedy death has been the consequence of such a transgression." Avoid a stream of wind or air, especially while in perspiration, as you would an arrow.

WET CLOTHES.

Another writer, treating on obstructed perspiration, has the following pertinent remarks: Wet clothes not only by their coldness obstruct the per-

spiration, but their moisture, by being absorbed or taken up into the body, greatly increases the danger. The most robust constitution is not proof against the danger arising from wet clothes; they daily occasion fevers, rheumatisms, and other fatal disorders, even in the young and healthy.

It is impossible for people who go frequently abroad, to avoid sometimes being wet: but the danger might generally be lessened, if not wholly prevented, by changing their clothes soon, when this cannot be done, they should keep in motion till they are dry. So far are many from taking this precaution, that they often sit or lie down in the fields with their clothes wet, and sometimes sleep even whole nights in this condition. The numerous instances which we have of the fatal effects of this conduct ought certainly to deter all from being guilty of it.

WET FEET.

Wet feet often occasion fatal diseases. The colic, inflammations of the breast and of the bowels, *cholera morbus*, &c., are often the results of wet feet. Habit will, no doubt, render this less dangerous; but it ought, as far as possible, to be avoided. The delicate, and those who are not accustomed to have their clothes or feet wet, should be extremely careful in this respect.

NIGHT AIR.

The perspiration is often obstructed by night air; even in summer this should be avoided. The dews which fall plentifully after the hottest day, make the night more dangerous than when the weather is cool. Hence, in warm countries, the evening dews are more hurtful than where the climate is more temperate.

It is very agreeable after a warm day to be abroad in a cool evening; but this is a pleasure to be avoided by all who value their health. The effects of evening dews are gradual, indeed, and almost imperceptible; but they are not the less to be dreaded: we would, therefore, advise travellers, labourers, and all who are much heated by day, carefully to avoid them. When the perspiration has been great, these become dangerous in proportion. By not attending to this, in flat marshy countries, where the exhalations and dews are copious, labourers are often seized with intermitting fevers, quinseys, and other dangerous diseases.

DAMP BEDS.

Beds become damp either from their not being used, standing in damp houses or in rooms without fire, or from the muslin not being dry when laid on the bed. Nothing is more to be dreaded by travellers than damp beds, which are very common in all places where fuel is scarce. When a traveller, cold and wet, arrives at an inn, he may, by means of a good fire, warm diluting liquor, and a dry bed, have the perspiration restored; but if he be put into a cold room and laid in a damp bed, the obstruction will be increased, and the worst consequences will ensue. Travellers should avoid inns which are noted for damp beds as they would a house infected with the plague.

But inns are not the only places where damp beds are to be met with Beds kept in private families for the reception of strangers are often equally dangerous. All kinds of linen and bedding, when not frequently used, be-

come damp. How, then, is it possible that beds which are not slept in more than two or three times a year, should be safe? Nothing is more common than to hear people complain of having caught cold by changing their bed. The reason is obvious: were they careful never to sleep in a bed that had not been recently used, they would seldom find any ill consequences from a change.

No linen or muslin, especially if washed in winter, ought to be used till exposed for some time to the fire; nor is this operation less necessary for sheets washed in summer, provided they have lain for any length of time. This caution is the more needful, as persons are often exceedingly attentive to what they eat or drink at an inn, yet pay no regard to a circumstance of much more importance. Muslin sheets are much more healthy than linen ones.

If a person suspects that his bed is damp, the simple precaution of taking off the sheets and lying in the blankets, with all, or most of his clothes on, will prevent the ill consequences that might otherwise ensue. I have practised this for many years, and never have been hurt by damp beds, though no constitution, without care, is proof against their baneful influence.

FEATHER BEDS.

There is probably not a single disease that we are not more strongly predisposed to, and which, when actually existing, is not in some measure aggravated by the use of feather beds.

Mattresses made of hair, straw, moss, manilla grass, husks, hay, or sweet balsam, are incomparably more favourable to health and comfort than feather beds.

DAMP HOUSES.

Damp houses are generally productive of ill results: for this reason, those who build should be careful to choose a dry situation. A house which stands on a damp marshy soil or deep clay, will never be thoroughly dry. All houses, unless where the ground is exceedingly dry, should have the first floor a little raised. Servants and others, who are obliged to live in cellars and sunk stories, seldom continue long in health.

CHAPTER XI.

EVACUATIONS OR EXCRETIONS.

The state of our health is materially influenced by the excretions or evacuations of the body. Nature has provided certain outlets for the purpose of carrying off morbific and extraneous matter, which, if retained too long, injures the health.

THE BOWELS.

It is scarcely necessary to say that costiveness is the cause of many complaints When the excrements are too long retained in the bowels, they

contaminate the fluids, and seldom fail to prove injurious. The bowels, therefore, should be kept regular. We cannot precisely determine how often they should be moved in a given length of time, as this depends upon the constitution, habit, state of the health, and other causes. As a general rule, however, once in twenty-four hours is sufficient, and two days at farthest; but there are instances where persons are so imprudent as to suffer their bowels to become so constipated, that nothing is discharged in one or two weeks. This is a very dangerous practice. Some persons, from a torpid state of the stomach and intestines, want of exercise, &c., are habitually costive, causing flatulence, swelling of the abdomen, loss of appetite, headache, debility, nervous diseases, and sometimes convulsions. To those I would recommend such a course of treatment, diet, and exercise as will restore a regular action of the bowels. Most persons continually take physic for this state of the system, which injures the tone of the stomach and intestines, and, after a while, rather aggravates than removes the cause.

Young females, and all who lead a sendentary life, are liable to costiveness, which lays the foundation for many diseases. Mothers, and others who have the care of children, ought to pay great attention to this matter, for they may rest assured that it cannot be neglected without much hazzard to the health and life of the young.

REMEDY FOR HABITUAL COSTIVENESS.

A mild purgative may first be administered to remove the accumulation of feculent matter, and occasionally repeated, until costiveness can be removed by other means.

After the operation of the physic, recourse must be had to proper diet. Nothing of a binding or heating nature must be taken; but, on the contrary, that kind which possesses loosening properties, such as fruit of various kinds, raisins, prunes, figs, dried peaches, apples, whortleberries, &c., and particularly the coarse bread spoken of in a preceding chapter.

Those who are habitually costive will derive great benefit from a tumbler of cider before breakfast in the morning. I have seldom or never known it fail to act moderately upon the bowels and to obviate costiveness. But there is another method which I have practised with great success, which is, when the bowels become constipated or costive, to use friction with the hand over the stomach and whole belly. Let the parts be daily rubbed and kneaded for ten or fifteen minutes. This has had an admirable effect, and regulated the bowels when all other means have failed.

Says Andrew Combe in his Treatise on Physiology: "Neither the stomach nor the bowels are adapted in structure for very concentrated food, as meat, jellies, &c. Such articles cannot be long used with advantage. Brown and rye bread and fruits are in repute for redeeming a costive habit of body, and their usefulness is explicable on the same principle. They leave a large residue to be thrown out of the system, and this residue forms the natural stimulus of the bowels, and, consequently, excites them to purer action."

A dog fed on bread made of superfine flour will live but fifty days; whereas a dog fed on unbolted wheat flour will continue in good health. Do we need any other proof than this of the injurious effects of common bread?

It is stated, upon good authority, that the following simple article is a remedy for costiveness:

Begin with one new laid egg, raw, to which add three times its bulk of

water, and beat it thirty minutes. Take it in the morning, and one or two more in the day. Increase to three at a time as the stomach will bear. It gradually removes the complaint. In cases where the bowels are very costive, injections of warm water are excellent.

I lately treated a very bad case of constipation, in which the excrements were so hard and impacted, that I was obliged to throw up the bowels large quantities of warm water, two or three times in the space of an hour, before complete evacuation and relief were afforded.

THE LIVER.

The state and quality of the bile must be attended to, in order to preserve health. The bile, in a vitiated state, or when not duly secreted, is sometimes obstructed in the liver and gall-bladder, and becomes a source of dyspepsia, constipation, and nervous complaints, jaundice, &c. When this is the case, or when a person is possessed of a bilious habit, it should be corrected principally by diet. All high-seasoned food and meats must be avoided, and vegetables substituted. Exercise should by no means be neglected; and one meal of victuals daily omitted. One or two anti-bilious pills may be daily taken, if a course of regimen should not prove effectual.

KIDNEYS.

The kidneys perform an important office, which, if suspended or imperfectly performed, will affect the health, by inducing inflammation of the kidneys, dropsies, &c. When there is a disposition to pass the urine more frequently than usual, and when there is but a small quantity voided at a time, it is evident that there is some derangement in the animal economy. Persons in this case should immediately resort to the use of such medicines as stimulate the kidneys, and cause them to secrete a larger quantity of urine, or, in other words, to perform their office. An infusion of parsley, whortleberries, marsh mallows, and other diluent drinks, should be freely taken. Should there be, however, too great a quantity of urine emitted, it will constitute a disease termed *Diabetes*, which requires an opposite course of treatment. If this be the case, as little drink as possible should be taken, and those of a tonic and astringent nature, such as a decoction of the bark of the wild cherry tree and beth root.

Some, who are styled urine doctors, pretend to *know* and *cure* diseases *by the inspection of the urine alone*. But this is impossible. So many things tend to change the quality and quantity of urine, as to render it altogether an uncertain criterion with respect to health or disease.

A writer on this subject has the following excellent remarks: "It has long been an observation among physicians, that the appearances of the urine are very uncertain and very little to be depended on. No one will be surprised at this, who considers how many ways it may be affected, and, consequently, have its appearance altered. The passions, the state of the atmosphere, the quantity and quality of the food, the exercise, the clothing, the state of the other evacuations, and numberless other causes, are sufficient to induce a change either in the quantity or appearance of the urine. Any one who attends to this will be astonished at the impudence of those daring quacks, who pretend to find out diseases, and prescribe to patients, from the bare inspection of their urine. These impostors, however, are very common in some parts, and, by the amazing credulity of the populace, many of them

amass considerable fortunes. Of all the medical prejudices which prevail in this country, that in favour of *urine doctors* is the strongest. The common people have still an unlimited faith in their skill, although it has been demonstrated that not one of them is able to distinguish the urine of a horse, or any other animal, from that of a man."

THE SKIN.

Perspiration constitutes the greatest of all the discharges from the body. Sanctorius, an Italian physician, was the first that directed the attention of the faculty to the cutaneous and pulmonary transpiration, which he proved to exceed the other secretions considerably in weight; and he maintained that this function must have a considerable influence on the system, and was deserving of great consideration in the treatment of diseases. From this we may learn what effects must follow its obstruction. No doubt more complaints arise from retained perspirable matter than from any other cause. It therefore becomes of vast importance to keep up a regular and constant perspiration; for want of a due attention to which, thousands of lives are annually sacrificed.

"Whatever gives a sudden check to perspiration," says Thomas, "may be productive of very injurious consequences, and should, therefore, be carefully guarded against, as many persons annually fall a sacrifice to not paying proper attention to the various causes from which perspiration may become obstructed; one of the most common of which is, taking, or catching cold, as it is more usually called.

By sudden transitions from heat to cold, either from changeableness of the weather, the state of the atmosphere, going immediately from a hot room into the cold air, or throwing off some part of the clothing when heated by exercise, the perspiration is very apt to be obstructed; and colds, coughs, and inflammation of the lungs are the usual effects of such conduct. Drinking freely of cold water, or any other small liquor, when the body is heated, is not only injudicious, but fraught with many ill consequences. Damp houses and damp beds or linen; exposure to night air, especially in hot countries; not changing clothes quickly after their getting wet; and continuing to wear stockings, shoes, or boots which are saturated with water, exposing the feet thereby to cold, are all likely to be attended with injurious consequences, by occasioning obstructed perspiration. The same will happen by throwing open a window when the room is hot, and sitting in or near it, so as to be exposed to a current of air.

Some are so imprudent or fool-hardy as to bathe themselves in cold water when considerably heated by walking, dancing, or the like exercises; and by such conduct have been soon attacked with some dreadful disease or other. In some instances death has been the result."

I shall here give rules to pursue, when perspiration has been obstructed from any cause. If the clothes have been wet, they should be immediately taken off, and dry ones substituted. The feet must be immediately bathed in warm water, and a glass of gin sling or toddy taken as hot as possible. After which, an infusion of tea of some medical plant may be taken, such as sage, mint, catnip, pennyroyal, hyssop, &c. This course will restore perspiration, and prevent dangerous, if not fatal, diseases. This is much better than sending for a common physician, to be *bled*, *blistered*, and *mercurialized!*

CHAPTER XII.

BATHS.

Baths of various descriptions are now so generally resorted to for pleasure or the cure of disease, that it becomes very important to consider their effect upon the human system in a medical point of view. They are attended either with considerable advantage or much injury to all who use them. Many have been cured, others have been injured, by them, and all which must be attributed to their indiscriminate use, the disease, or the circumstances under which they have been used. We shall now mention the different kinds, and different complaints in which they prove beneficial and which injurious. They are denominated the

Cold
Warm
Hot
Vapour
Sulphur
Shower
} Baths.

THE COLD BATH.

The cold bath consists of water, either fresh or salt, in its natural degree of heat, or it may be made colder by art. The temperature of it, in general, varies from thirty-two to sixty-five degrees of Fahrenheit's thermometer. Sea water and the water of ponds and rivers are very similar in their effects; but sea water is preferable, from the stimulating effects of the salt with which it is impregnated.

In treating of the cold bath, we wish it expressly understood, that the temperature of the water suitable for bathing in general must be similar to that of our bays and rivers in the summer months. A sensation of comfort and some degree of warmth must be experienced a few moments after immersion. A sensation of chillness, on the contrary, is an evidence that the temperature of the water is too cold.

Cold bathing may be used in the following complaints: Fevers, chronic rheumatism, hysterics, hypochondriac, and paralytic affections, rickets, scrofulous complaints, general debility, obstructed perspiration, languor and weakness of circulation, accompanied with profuse sweating and fatigue on very moderate exercise. It is useful in that slow, irregular fever to which many persons, particularly those who lead a sedentary life, are subject. Such persons have constantly a pulse rather quicker than natural, hot hands, restless nights, impaired appetite, dejection of spirits, &c.

The cold bath is injurious in all cases where immediate reaction does not follow its use. If, instead of perspiration or warmth, it is attended with chills, great depression, languor, headache, &c., it is obvious that it should not have been used. It is productive of apoplexy in plethoric habits; and is dangerous in obstructed menses, in coughs, ruptures, or when any internal organ is diseased. If the temperature of the body is below the natural standard, or there is a profuse perspiration, cold bathing should invariably be avoided

Those who are constitutionally weak, and who have but little energy of circulation, are injured rather than benefited by the cold bath.

We believe that there are few, if any, cases in which the sudden application of cold water to the system (except in some particular diseases) proves beneficial. On the contrary, the sudden shock given to the system often brings on disease: therefore *a very cold bath* should be seldom used. The water for ordinary bathing, for persons in health as well as in disease, should be of such a temperature as to cause an agreeable sensation while bathing. When this agreeable sensation is not felt, but rather there is a sense of coldness, the person should leave the water immediately, wipe himself dry, then walk or exercise briskly until warmth of the system is restored. For the want of proper precautions in bathing, many have lost their lives

Bishop Heber, of Calcutta, on a mission from England to that country, died in the bath in consequence of not attending to the above precautions. It is said that Marcellus was so prostrated by the cold bath, that he died soon after.

Five minutes is long enough to remain in the cold water; and, on coming out, the whole body should be rubbed over briskly with a coarse towel.

TOPICAL BATHING.

The application of cold water in cases of local inflammation proves highly efficacious. It may be freely and safely used in inflammation of the brain, dropsy of the head, and in some grades of fever, particularly typhus.

A variety of chronic catarrh, which displays itself in a troublesome flow of mucus from the nostrils, and often continues for months, is cured by immersion of the head in cold water, or by the application of this fluid to the part by means of a sponge or towel. The following case from an old writer little known, (*Vander Heyden,*) will show the utility of this practice:

"Bathing of the head in cold water cures inveterate pains of that part, and also the continual catarrhs and defluxions: for it is certain that, if the head be put in cold water as far as the middle bone of the hinder part of the head, and to the end of the nose before, so that there be left just so much of the nose out of the water as that the party may have freedom of breathing only, and that this be done so long as while a man may be saying the Lord's Prayer, the pain of the head, though it hath been of long continuance, will thereby be removed and the defluxions stopped, as hath often been proved by experience. And I have been much confirmed in this opinion of mine by an experiment of it made upon a certain English knight, named Sir Toby Mathews, a man no less eminent for wisdom than fit for public trust. This gentleman having been troubled twenty years together with an intolerable pain on one side of his head, and also with a continual and violent defluxion of the head, distilling through his palate and nose in so great a quantity, that he could never go without a wet handkerchief in his pocket; he was so happily cured of both these maladies in the sixtieth year of his age, by thus bathing his head in cold water, as that, till the seventieth year of the same, which he hath now passed, he hath never had the least touch of either during the said space of time; and, being now better in health than ever he was in his life before, to prevent his falling into the like infirmities again, he useth the said immersion of his head in *cold water* all the year long, and even in the depth of winter; also, he saith that he received this profitable advice from a certain English nobleman, who, having himself been a long time much tormented with the same disease, had by this means

cured both himself and very many others who were alike affected, and restored them to perfect health, to the great admiration of all men."

It is stated that several wens have been cured by bathing them frequently in salt water.

A very intelligent physician informs me that eyesights which are weak and dim from age or any other cause, are essentially benefited or cured by holding the face under clear water every day, and suffering it to come in contact with the eyes by winking a few times. It is reasonable to suppose that this practice is calculated to give them tone and energy.

Dipping or bathing the crown of the head every morning in a basin of cold water is an excellent remedy for pains of the head, melancholy and nervous disorders.

WARM OR TEPID BATH.

The temperature of the warm bath should be about ninety-five of Fahrenheit's thermometer. This kind of bath is much better calculated for bathing in general, in most seasons of the year, than either the cold or the hot bath.

We cannot doubt of the tranquillizing and soothing effects of the sedative operation of warm bathing. There seems to be, however, this difference between the cold and the warm bath, that, while the former depresses at once, and powerfully, the circulating and nervous systems, benumbing and rendering them torpid even unto death, or preparing for a violent and irregular reaction—tingling and glow—the latter is just in that relation with the nervous system to convey a sensation, soothing by its mildness and active by its diffusiveness, and with the capillary system to invite blood into the smaller vessels of the extremities, which were of a temperature less than the water, and thus produce an equal, yet moderate, fulness and action of these vessels; an effect still farther ensured by the softened and diminished resistance of the skin.

To those who are past the meridian of life, says Darwin, and have dry skins and begin to be emaciated, the warm bath, for half an hour twice a week, I believe to be eminently serviceable in retarding the advances of age. Acting on this principle, this learned physician relates that, when Dr. Franklin was in England, he recommended the latter to use a warm bath twice a week, a practice which he afterward continued till near his death.

"So early as the time of Homer an opinion seems to have prevailed of the utility of warm bathing in advanced life. When Ulysses, after his return to Ithaca, found his father Laertes reduced to great weakness, he advised him to use warm bathing, and, to encourage him, told him he had seen one *whose case was exactly similar to his, worn down and emaciated with age*, who, by the use of warm baths, very quickly *recovered his appetite and rest*. He likewise adds, that its efficacy in such cases was well known, and that it was a common *custom among old men*." Odyss. XXIV.

It has been supposed till very lately that one constant effect of the warm bath is to relax and debilitate the body; but numerous experiments seem to prove that this opinion was founded in error, and that, on the contrary, persons debilitated by disease have felt stronger on the days when they used the warm bath, and were soon restored to their former strength. If in any cases relaxation and debility follow the use of the warm bath, it is to be attributed to the heat of the bath having been too great for the constitution of the patient, or the immersion having been continued too long. The stimulant effects of the warm bath are very inconsiderable, and it is found useful

in allaying irritation, diminishing morbid frequency of the pulse, relaxing and purifying the skin, and in inducing sleep and repose. The warm bath will be attended with advantages in those cases of fever where the heat is preternaturally great, but where, from some affection of the lungs, consumption, or other unfavourable symptom, cold bathing is inadmissible; in the paroxysms of hectic fever; in several eruptive diseases attended with increased heat and dryness of the skin; in gout and rheumatism, stiffness and swelling of the joints; in obstruction of the menses; in slight cases of palsy; in scrofulous swellings; in some spasmodic and convulsive affections, where the cold bath might prove too violent; in all those affections of the bowels that seem to depend on an irregular or diminished action of any part of the alimentary canal; and in cases of debility attended with nervous irritation. In cases of predisposition to coughs it shares the frequency of the pulse, and tends to retard at least, if it does not wholly prevent, the pulmonary affection. The time of continuing in the warm bath should be varied according to the temperature of the water and the feelings of the patient. In a bath of ninety-six a person may remain fifteen, twenty, or thirty minutes.

Where the constitution is not sufficiently vigorous to secure reaction after the cold bath, as indicated by a warm glow over the surface, it certainly does an injury.

For habitual use, bathing in water moderately warm is the safest and most valuable, especially for invalids, during the autumn, winter, and spring.

In France the warm bath is held in such a high repute in some complaints, that it is used three or four times a day. It is highly recommended in cases of insanity. Says Dr. Combe: "When I visited the hospital for the insane M. Esquirol spoke to me in very strong terms of the benefits resulting from warm bathing, and declared that he had ever found it, when used with ordinary prudence, a safe and valuable remedy."

HOT BATH.

By the hot bath we understand a greater degree of heat than the warm bath. The water should be made as hot as the person can endure it. In this state it possesses the most powerful relaxing properties, and should only be used in cases of emergency, in very painful and dangerous diseases, where an immediate relaxation becomes necessary, such as fits, suppression of urine, gravel, strictures, complaints of the kidneys, cramp, hypochondria, bilious colic, &c. The most sudden and salutary effects are experienced from the hot bath in these and similar complaints.

TOPICAL APPLICATIONS.

Hot or warm water applied to any painful parts, is attended with the happiest effects. It removes the tension of the skin, diminishes irritability, and is often very useful.

Neither the hot nor the warm bath should be used where there is a great determination of blood to the head, or where there is much plethora.

Fourcroy relates the case of an individual who, being immersed in a bath of the immoderate heat of 66 degrees of Reaumur, (180 degrees of Fahrenheit,) fell down apoplectic an hour after. And a writer acquaints us with the history of a patient who was seized with paralysis from having used a bath excessively hot. Peter Frank mentions the developement of an inflammatory fever followed by the appearance of fourteen abscesses, after the

application of such a bath. Venel saw, at Baiaruc, a sick person sink into a state of fatal debility by remaining too long in a hot bath; and the same author tell us that at Cauterets a Spaniard died of hemorrhage from the same cause. Similar inconveniences and alarming effects are also noticed by Currie.

"By a *hot* bath," says Bell, "we are to understand that in which the water is of a heat exceeding 98 degrees of Fahrenheit. It is decidedly stimulating, and, in its often violent and marked effects on the human body, contrasts strongly with the more pleasurable impressions produced by the warm bath. This contrast must convince us of the impropriety of including the two under a common head, and of confounding their different powers. The hot bath, by imparting to the system an excessive dose of heat, strongly excites the circulation, and proves a nervous irritant."

THE VAPOUR BATH.

The vapour or steam bath is a contrivance by which steam, either simple or medicated, is brought by pipes from a vessel of boiling water, and admitted to the body placed in a small box or chamber. The room is heated to a temperature considerably above that of the atmosphere, and the naked body (sometimes including the head) is suffered to remain in this heated air until perspiration takes place. Aromatic herbs are thrown into the boiler, which render the bath more pleasant and more stimulating in its effects. It may be made by placing the person in a common chair, with the outside clothes removed, and a blanket thrown around the body to exclude the external air Under the chair a suitable tub or vessel must be placed, and a decoction of the herbs thrown into it. The vapour arising from this surrounds the body, and after fifteen or twenty minutes a free perspiration takes place. If the steam is insufficient to cause this perspiration, a brick or stone, previously heated, may be thrown into it: some substitute burning alcohol or spirits to produce the steam. A bath still more simple in its construction, and which answers well for all domestic purposes, may be made in the following manner: Let the herbs, say pennyroyal, spearmint, catnip, and tansy, a double handful of each, be all boiled in a pailful of water, and the whole thrown into a tub of a suitable size; then place one or two narrow pieces of board across the tub, and partially covered with a piece of flannel or cloth of any kind The person will sit over this in the manner above directed, until he perspires freely. A heated brick or stone in readiness may also be necessary in this case, to add to the decoction. Care must be taken that there are sufficient openings by the sides of the strips of board, or the covering of them, to admit the steam to the body: bathing the feet at the same time, and drinking freely of an infusion or tea of catnip, will greatly aid the process of sweating.

The steam or vapour bath, used in this manner, is very valuable in many diseases. It is useful in the commencement of all diseases where it is necessary to promote perspiration, and where the patient is not confined to his bed in fevers, rheumatism, colds, inflammation of the lungs, and other painful affections.

The vapour or steam bath may be applied with advantage in every case which is attended with a torpid state of the vessels of the surface and extremities of the body.

"Dr. D. T. Coxe, of this city," says Dr. Bell, "has published a short paper on the efficacy of the vapour bath, which he superintended at the time, in various diseases. In most of them the vapour was inhaled as well as applied to the surface of the body. The diseases enumerated as greatly

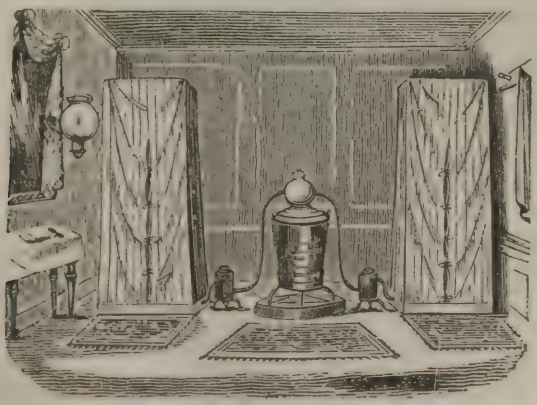
relieved or entirely cured were, chronic diseases of the liver, rheumatism, ulceration of the fauces, pimples and other blemishes on the skin, enlarged spleen, with tendency to dropsy, dyspepsia, inflammation of the kidneys, hemicrania, influenza, and erysipelas. In reference to the dyspeptic patients who used the bath, he informs us that it removed the costiveness of the bowels, and generally improved their complexion; perspiration was with difficulty brought on. We are told that 'here the benefit terminated.' The erysipelas, says Dr. C., was one of the diseases which yielded readily and kindly to the influence of the vapour bath.

It was remarked that the peculiar odour of some of the articles through which the steam was made to pass before its being applied to the body of the patient, was perceived in the urine.

In one case, a person suffering under cutaneous eruption, accompanied with a torpor of the liver, it was at first about 104 degrees, in which the sweating was profuse. Each time the temperature was augmented, until it reached to between 115 and 120 degrees. This case serves to illustrate a fact mentioned by all writers on this subject, viz., the impunity with which a person who has been exposed to the elevated temperature of a vapour bath can subsequently bear cold. The person in question 'was in the habit of taking several tumblersful of cold water while in the bath; and neither in this case nor in any other in which this usage was followed, did any bad consequences result.'

In the apparatus used by Dr. D. T. Coxe, after the plan obtained from Mr. Whitlaw, and the invention of which was claimed by the latter, 'the vapour, generated in a boiler, escaped through a bent tube, furnished with a stop cock, into a small basin or receiver in the lower part of a box. The top of this receiver, into which herbs or other articles were placed, as well as the upper covering of the box, was perforated, and allowed the free ascent of the medicated vapour into the upper or curtained part of the contrivance, where the bather sat, who either inhaled the vapour, or had it merely applied to the surface of the skin, according to the situation of his head, whether in the interior on the outside of the enclosure.'"

The following figure represents a MEDICATED VAPOUR BATH, made to steam two persons at one time. There is a furnace between the two baths, in which the water is put. The steam passes through tubes into the small receivers at the sides of the boiler, which contain the herbs, and thence into the baths, in which the patient is placed. One bath is sufficient for a family.



Many a cold and many a rheumatism attack, arising from obstructed perspiration, might be nipped in the bud by its timely use: in chronic affections of the skin; in St. Anthony's Fire; diseases of the lungs, throat, stomach, and intestines, with which the skin sympathizes so clearly, the judicious use of the vapour bath is very beneficial. It is also advantageous in mental and nervous diseases, in which langour and inaction of the skin are usually attendant symptoms.

The prevalent fear of catching cold, which deters many from using the vapour bath, is founded on a false analogy between its effects and those of profuse perspiration from exercise or illness. The latter weakens the body, and, by diminishing the power of reaction, renders it susceptible of injury from sudden changes of the weather; but the effect of the vapour bath is very different. When not too warm or too long continued, it increases, instead of exhausting, the strength; and, by exciting the vital action of the skin, gives rise to a power of reaction which enables it to resist cold better than before, as experience teaches: and the fact is exemplified in Russia, where in winter the natives sometimes rush out of the vapour bath and roll themselves in snow, the stimulus given to the skin by the bath preventing their taking cold.

SULPHUR BATH.

The sulphur and other medicated baths have been highly extolled for the cure of various complaints, but I have spent much time and money in testing their efficacy, and never could perceive that they possessed any advantages over the vapour bath.

SHOWER BATH.

This is a species of cold bath, an invention by which water falls from a height through numerous holes or apertures, on the head and body. It may be conveniently made by boring numerous small holes through a tub or half barrel, which must be fastened a few feet above the head of the person. Another tub of a sufficient size to contain two pails of water, must be suspended over the other, and made to turn upon an axis. A rope or cord must be fastened to this, so that it can be inverted or turned downward at pleasure. The person taking the shower bath must place himself beneath, uncovered; and, having filled the tub with water, he will suddenly pull upon the cord, when almost instantaneously the contents of the upper tub or bath will fall into the lower one containing the holes, and the water will thus be conveyed in numerous and copious streams upon the head and body.

The apparatus should be enclosed, as well as the body, in a box or frame a few feet square, or large enough to enable the person to stand or turn round with convenience. A few boards or plank enclosed in a small frame is sufficient for the purpose. Rub the body well with a dry towel after the bathing.

This bath may be used in all diseases of the head, epilepsy, nervous complaints, headache, melancholy, hypochondriasis, obstruction of the menses, and such complaints as arise therefrom, delirium, general debility, &c.

Dr. Sylvester Graham, who has become very celebrated on account of his lectures on temperance and diet, recommends, I am told, the shower bath for numerous complaints.

A writer in Zion's Herald, over the appropriate signature "Comfort," has

the following interesting remarks on the shower bath, and his own experience in applying the same. We prefer it, whenever and wherever it can be used, to most other forms of cold bathing; and hope that its inconvenience will be obviated—at least in part—by the simple method which is here proposed

"I had a shower bath made at the expense of ten dollars, and it makes a neat article of furniture in one corner of my chamber. On the top a box, that holds about a pail of water, swings on a pivot, and a string from it communicates inside; and underneath, to catch the water, is a snug-fitting drawer.

Immediately on rising in the morning I shut myself in this enclosure, and receive the contents of the box at the top, let it drip off a moment, and then apply briskly a crash towel, and immediately a fine healthy glow is produced all over the body. The time occupied does not exceed *five minutes:* I have often done it conveniently in three or four minutes, particularly when the wind has been in a cold corner, and all cheerless out of doors; but in these melting times it is too great a luxury to be hurried through with.

I hope all will be induced to try this plan who can possibly raise ten dollars to pay for the bath. I can assure them they will never put this article aside as useless, or sell it for less than cost. I certainly would not part with mine for ten times its cost, if another could not be procured."



The above figure represents an IMPROVED PORTABLE SHOWER BATH, which may be constructed at a small expense, and placed in a bed-room or other place. Both the bath and the water may be drawn to the desired height by means of the cord or rope running over the pulleys, and fastened to the ceiling. The person taking the shower bath is placed within, surrounded partially or wholly by the curtains, when he pulls a wire or cord which inverts the vessel overhead containing the water, and lets it fall in copious streams over the whole body. There is a receiver at the bottom in which the patient stands, and which prevents any escape of the water.

"The warm, tepid, cold, or shower bath," says Combe, "as a means of preserving health, ought to be in as common use as a change of apparel, for it is equally a measure of necessary cleanliness."

A bath on the above plan can be purchased for eight dollars.

CHAPTER XIII

ABLUTIONS, OR BATHING THE SURFACE.

When the perspiration is brought to the surface of the skin, and confined there either by injudicious clothing or by want of cleanliness, there is much reason to fear that its residual parts are again absorbed, and act on the system as a poison of greater or less power, according to its quantity and degree of concentration; thereby producing fever, inflammation, and often death itself: for it is established, by observation, that concentrated animal effluvia form a very energetic poison.

The substances emitted from the skin by perspiration are water, carbon, carbonic acid, phosphate of lime, and sometimes urea and animal oil, and perhaps phosphoric acid. Now it must be obvious, that an absorption of these agents is liable to cause disturbance and irritation, which proves the necessity of frequent attention to the skin, both in health and disease.

When we consider that the whole surface of the body is continually discharging morbific matter or impurities from the body, and that it holds very near and powerful relations to the lungs, stomach, and other internal organs, we shall see the importance of keeping it in a healthy state; and, in order to do this, nothing is more necessary than frequent ablutions, bathing, or the shower bath.

Bathing the surface, with friction, is excellent to prevent disease and restore health. It removes from the surface every species of impurity, promotes a free circulation of the blood in the minute vessels of the skin, and enables this important organ to perform its office, without which some complaint ensues. It promotes the growth and developement of the muscles, invigorates the digestive organs, and imparts a pleasant glow and an increased energy to the whole system, by which it is rendered less liable to be disordered by cold or the changes of atmosphere. The ancients, it is said, had the art of rendering fat people lean, and those who were emaciated, fleshy, by exercise and frictions of the skin. Though useful to preserve health, bathing and rubbing the whole surface of the body are calculated to increase the health and vigour of persons labouring under debility, who lead a sedentary life and are subject to indigestion, nervous diseases, rheumatism, coughs, fever, pains, and such as are subject to disease by the sudden changes of the weather. This practice destroys the susceptibility to cold, which is the existing cause of so many diseases.

The whole body should be daily, or at farthest weekly, bathed entirely over with weak ley, or water, and immediately after brisk friction with a coarse or crash towel applied to the whole surface, till the skin begins to grow red and assumes an agreeable glow.

This practice is highly useful in the case of delicate persons; and bathing children in this manner promotes their growth and activity, and prevents scrofula, rickets, cutaneous and other complaints. The best time for this operation is in the morning or evening. Those who are subject to wakefulness and disturbed sleep, and hysterical affections, will find, in addition to a properly regulated diet and active exercise in the open air, that sponging the body with cold or tepid water, followed by brisk frictions of the surface for a few minutes, will more effectually remove these symptoms than most

other means: or the shower bath may be used. This process cleanses and invigorates the skin, is very refreshing, and contributes much to health; it is pleasant even in cold weather. After this ablution, exercise of some kind should be taken. Should there be any sense of cold or chilliness, the operation must be discontinued, or the water warmed.

Those who practise this bathing of the surface will never suffer much, if any, from colds, (the forerunner of consumption,) sore throats, or similar complaints. "Man studies the nature of other animals, and adapts his conduct to their constitution, but of himself he is ignorant, and him he neglects. If one-tenth of the persevering attention and labour," says Combe, "bestowed in rubbing and currying the skins of horses, were bestowed by the human race in keeping themselves in good condition, and a little attention were paid to diet and clothing, colds, nervous diseases, and stomach complaints would cease to form so large an item in the catalogue of human miseries."

I ordered a patient, now in the office, to bathe the surface as above directed, which he has done, and he states that he has not taken cold since, though he was formerly much subject to it. After bathing he experiences an unusual warmth over the whole body. He stands in the fish-market, where he is liable to checks of perspiration from the sudden changes of the weather.

If the whole body be, as it were, covered with varnish formed of perspirable matter, it is impossible that a person in such a state can possess sound blood, or enjoy good health.

CHAPTER XIV.

MINERAL OR MEDICINAL WATERS.

Several springs have been found in the United States, holding in solution certain mineral, saline, or medicinal agents, which have obtained popularity from their real or supposed efficacy in curing diseases. The term mineral water seems not very appropriate, for such are found exceedingly dangerous to drink. Some are impregnated with copper and other deleterious substances, and are dreaded by man and beast. But those which hold in solution earthy substances principally, or even a small portion of iron, exert some sensible effect on the animal economy. Hence it is not irrelevant to notice them. Those most frequented by invalids throughout the United States are the following:

Ballston, N. Y.	New Lebanon, N. Y.
Saratoga, N. Y.	Schooley's Mountains, N. J.
Bedford, Pa.	Orange, N. J.
Yellow, near Philadelphia.	Stafford, Conn.
Do. Ohio.	Suffield, Conn.
White Sulphur, Virginia.	Pittsburgh, Pa.

The effects of these waters vary according to their component parts. Their medicinal effects, if any they have, depend not upon the mineral agents, as many suppose, if we except the tonic properties of iron, to which metal we will not object; but to other ingredients, such as salt or muriate of soda, lime, magnesia, and sulphur, or the diluent properties of the water itself. These no doubt sometimes benefit, by their purgative or diuretic properties:

but most of the benefits derived from these springs are owing to a change of air, diet, exercise, &c.

Mineral waters are divided into different classes—those containing iron, salts, sulphur, and lime. The most popular are the

BALLSTON AND SARATOGA SPRINGS.

They are situated about twenty-eight miles from Albany, state of New York, in a healthy and pleasant part of the country. The water of these fountains is perfectly clear, and, as it rises up, sparkles briskly. Its taste is saltish, with a slight degree of bitterness, and its effects on the system purgative or aperient.

Upon analysis, a bottle of 25 ounces of the Ballston water contains the following ingredients:

1. Carbonic acid, three times its volume.
2. Muriate of soda, 31 grains.
3. Super saturated carbonate of lime, 22 grains.
4. Muriate of magnesia, 12½ grains.
5. Muriate of lime, 5 grains.
6. Carbonate of iron, 4 grains.

A greater number visit these springs, either for health or pleasure, than any other in America. There are many other springs in the same section, but the general character of the waters are similar.

PROPERTIES AND EFFECTS OF THE WATERS.

Ballston waters contain a larger proportion of fixed air and a greater quantity of iron than any other mineral water which has ever been discovered. It will be seen also that they contain a great portion of lime. Many who have drank of them state that they have received great benefit; others say they have been much injured.

I shall first speak of cases in which *they are not beneficial.* First, in those complaints which are attended with an increased excitement of the whole system, or with local inflammation, they are manifestly prejudicial. We infer this from the qualities of the water alone. It is also confirmed by experience and observation. They are injurious in pregnancy. A woman some years ago lost her life by the imprudent use of them. They are injurious in diseases of the mesentery and of the lungs. A person afflicted by the consumption was evidently hastened to the grave by the frequent use of these waters. In cold, phlegmatic, bilious habits they must be hurtful: also in chronic diarrhœa and dysentery.

Diseases in which they are beneficial. From the lime and salt, magnesia, &c., which they contain, and their operation upon the urinary organs, they may be useful in the dropsy, gravel, and other affections of the kidneys and bladder.

General Debility. Being strong chalybeates, they possess some tonic powers; hence they are useful in dyspepsia, hypochondriasis, and hysteria. They may be serviceable in painful and suppressed menses; likewise in that species of consumption arising therefrom; also the rickets and scrofulous affections, &c.

Dr. J. H. Steel, who was for many years a resident at Saratoga Springs, speaks highly of the benefits derived from these waters, used internally and externally. He remarks, in a Treatise published on these waters, as follows:

"They are of eminent service to an impaired or capricious appetite, and weakness of the assimilating organs; in irregular digestion, flatulent distention of the abdomen, anxiety about the *præcordia*, (chest,) difficult respiration from sympathy with the stomach, occasional vomiting of viscid mucus," &c. They are also excellent in bilious and dyspeptic complaints.

In *Dyspepsia* it is usual to begin a course of the waters with the Congress. This should be taken in the morning, before breakfast; four or five tumblersful are commonly sufficient to produce a pretty copious discharge from the bowels; and in weak, irritable habits half the quantity, or a single tumblerful in some cases, is amply sufficient to answer the purpose; but in those cases where the bowels are attended with an habitual constipation, the quantity of water required to move them is apt to prove too cold to the stomach, and, by producing cold chills and nausea, frequently defeats the general intention of its application. This may be prevented by taking some suitable laxative over night, and a much less quantity of water in the morning will answer the wishes of the patient, without subjecting him to any inconvenience. But the water of the Congress is not alone to be depended upon for the removal of this disease: when the stomach and bowels have been sufficiently cleansed by the pleasant and innocent purgative properties of this water, recourse must be had to the operation of the more powerful *chalybeates*. These are to be found in the waters of the *Flat Rock*, the *Columbian*, in *Ellis' Spring*, and at the *Spa*.

The quantity of water, from either of these fountains, to be used daily, depends in a great measure on the state of the disease and the disposition of the stomach; it is, therefore, necessary to commence their use in small quantities at a time, in distant and regular intervals, gradually increasing the quantity and frequency of the draught, as may be most agreeable to the stomach and least injurious to the feelings. In this way the quantity may be increased to from one to two quarts a day; and it is questionable whether a much larger quantity may be drank with any additional advantage.

Conjoined with the internal use of the water, bathing should not be forgotten; its exhilarating effect upon the surface contributes much to the restoration of the vigour and health of the stomach. The cold shower bath should always be preferred where the energy of the system is sufficient to overcome the effects of the cold, and produce the sensation of warmth over the surface of the body immediately after its application. Where this sensation is not produced, the cold bath should be dispensed with, and the tepid or warm bath substituted in its stead, together with general friction, with a flesh-brush or coarse flannel, over the whole surface.

The stimulating effects of these waters, arising from their saline and gaseous properties, give them a decided preference over any other as a bath; and those who are labouring under a deficient or irregular action of the cutaneous vessels, arising either from a sympathetic affection with a diseased stomach, or from an original affection of the vessels themselves, will find it to their advantage to persevere in its use under this form. They may be very beneficial in gout, ulcers, dropsy, cutaneous affection, rheumatism, scrofula, and nervous diseases."

FAUQUIER WHITE SULPHUR SPRINGS, VA.

This spring is situated in the State of Virginia, Fauquier County. The water is impregnated with sulphate of magnesia, phosphate of soda, and sulphurated hydrogen. It has a strong sulphuric smell, and the taste is like

the odour from the yolk of a hard-boiled egg. The water is highly recommended in dropsy, rheumatism, and bilious complaints. I knew a person who was afflicted with an enormous swelling of the abdomen, who was cured by warm bathing, causing perspiration, and drinking the water. This spring is now becoming a fashionable place of resort, there being about six hundred visiters at one time.

Among the number of springs which have obtained notoriety in chronic diseases may be mentioned the Schooley's Mountains, New Jersey; Pittsburgh Chalybeate Mineral Spring; Yellow Spring, Green County, Ohio, sixty-four miles from Cincinnati. New Mineral Spring, Albany; Bedford Mineral Spring, Pennsylvania; Saline Springs, Big Bone, State of Kentucky; Lebanon Spring, twenty-six miles from Albany, New York.

It is probable that most of the advantages derived from visiting these springs arise from the change of *air*, *scenery*, and *exercise*. Did the sick live according to the laws of physiology at these watering-places, health would soon be regained. But they eat and drink whatever their appetites crave, and that of the most unhealthy character, and thus counteract the benefit they otherwise would receive. Were invalids to live on a *simple*, *plain diet*, and take a sufficient quantity of exercise, they would recover their health even by drinking common *spring* or *well* water.

CHAPTER XV.

SEA VOYAGE, CLIMATE, AND TRAVELLING.

A CHANGE of climate for the cure of disease is sometimes very salutary. A sea voyage often proves beneficial from the motion of the vessel causing nausea and vomiting, thus exciting a healthy action of the skin and the digestive and respiratory organs. Hence the influence of climate is sometimes very great in changing the system from a morbid to a healthy state. A voyage to England or the continent of Europe is recommended for nervous and chronic diseases in general, which resist medical treatment; but for complaints of the breast or lungs, the climates of Brazil, the West Indies, and Florida are by far the best, and St. Croix is the best island for consumptive persons.

A sensible writer, on the climate for invalids, thus remarks: "The best islands in the West Indies are those that are small and dry, having a constant sea-breeze and no change of temperature. At this place (St. Croix) I have seen the thermometer stand so long at eighty degrees, with a steady cool breeze, that I supposed it did not range . but I found this no uncommon occurrence. Here, too, are by far more and better accommodations for invalids than in any other place in the West Indies, and the climate is more steady and less subject to rain than Cuba. As a proof of it, year after year the crop is not one-half, owing to the want of rain."

I should not recommend a voyage to Europe for pulmonary complaints, although the south of France might prove beneficial. Long journeys by land, or on horseback, or by carriage are highly conducive to health, and have removed many obstinate complaints. A person in Newark, N. J., laboured under a very severe and fixed pain in his side, which only yielded to a long journey on horseback of three hundred miles. In the commencement it aggravated his symptoms

Sydenham states that riding on horseback will cure all disorders, except confirmed consumption.

It would seem that a warm and dry atmosphere equalizes the circulation of the blood, which relieves the internal organs of the system from congestion and irritation.

Again, when we reflect upon the extensive surface of the air cells of the lungs, being as great as the whole body, and which are continually exposed to the atmosphere, we may learn the influence of mild and bland air on these organs, and on pulmonary and other complaints.

A change of scenery, the exercise of the journey or voyage, the hope of recovery, no doubt all contribute to the restoration to health.

DYSPEPSIA, NERVOUS DISEASES, ETC.

A lady of this city states that she was reduced to a most deplorable condition of mind and body by the dyspepsia. She tried a great many medicines, all to no purpose; finally she went to the Island of Cuba, where she resided for some time, and soon regained her health. She began to improve as soon as the vessel arrived in the gulf stream.

Sir James Clark, present physician to the Queen of England, thus observes on this subject: "That in dyspepsia, and diseases of the digestive organs generally, and in the nervous affections and distressing mental feelings which so often accompany these, in asthma, chronical diseases, scrofula, and in rheumatism, the beneficial effects of climate are far more strongly evinced than they are in consumption."

Dr. S. Forry, on the climate of Florida, says: "It is demonstrated that invalids, requiring a mild winter residence, have gone to foreign lands in search of what might have been found at home, namely, *an evergreen land, in which wild flowers never cease to unfold their petals.*"

I am inclined to believe that Kentucky, Tennessee, the Carolinas, Georgia, Florida, and New Orleans are as well, if not better, calculated for persons labouring under pulmonary diseases, as any other climate, except perhaps that of the Island of Cuba. A lady in Massachusetts had all the symptoms of consumption, and was considered incurable; she went to Kentucky and resided with her daughter, where she actually recovered. Another person, having a bad cough, removed to Savannah, and was cured. In cases of this kind the residence must be permanent. The Alleghany Mountains, together with a more southern latitude, seem to modify the temperature of the atmosphere, and render it more mild and salubrious.

CHAPTER XVI.

TOBACCO.

The use of tobacco has become so prevalent in this country, that in some places a large majority of *both sexes*, above fifteen years of age, either snuff, smoke, or chew it. The same habits prevail to a great extent in almost every portion of the globe.

When we take into consideration the disagreeable and repulsive character of this production to the unvitiated palate, it is truly surprising that it

should ever have been thought of as an article for such use at all; and when to this consideration is added, the exceedingly important one, that it is highly injurious to the human system, the fact of its general use becomes still more astonishing. Many, however, are not aware of its pernicious effects; and this will, in some degree, account for this extensive use. I propose, therefore, to exhibit these effects in their true colours in this article, in the hope of inducing such to abandon those baneful habits.

It should be understood, then, that tobacco is an actual and a virulent poison. Three drops of the distilled oil of tobacco, dropped upon the tongue of a full sized cat, usually causes death in from three to ten minutes: and even when used medicinally, it is so uncongenial to the system, and of so baneful a tendency, that physicians now seldom administer it, even in the most desperate cases. In many instances, where it has been applied internally, or even externally, it has caused death in a short period. A tobacco poultice applied to the pit of the stomach causes terrible vomitings in a very short time. Its application to the head produces similar effects. A girl about seven years of age, in good health, was seized with incessant vomiting, by merely having an ointment of butter and snuff applied to her head, which was affected with the *scabies*. Fontana ranks tobacco with the vegetable poisons; and he gives the following account of his experiments:

"I made," says he, "a small incision in a pigeon's leg, and applied to it the oil of tobacco; in two minutes it lost the use of its foot. I repeated this experiment on another pigeon, and the event was exactly the same. I made a small wound in the pectoral muscles of a pigeon, and applied the oil to it; in three minutes the animal could no longer support itself on its left foot. This experiment repeated on an another pigeon, ended the same way. I introduced into the pectoral muscles of a pigeon a small bit of wood covered with this oil; the pigeon in a few seconds fell insensible. Two other pigeons, to whose muscles I applied this oil, vomited several times all that they had eaten. Two others with empty stomachs, treated as above, made all possible efforts to vomit. Vomiting was the most constant effect of this oil."

To the foregoing it may be added, that an application of tobacco in almost any form will produce a similar effect: and chemists tell us that tobacco leaves, distilled in a retort, without addition, yield an acrid, empyreumatic, poisonous oil. Kempfer also classes it with the strong vegetable poisons; a most appropriate classification indeed, seeing that a single drop of the chemical oil of tobacco, applied to the tongue of a cat, has produced violent convulsions, and caused death in one minute; and a thread dipped in the same oil, and drawn through a wound made by a needle in an animal, has killed it in seven minutes. Nay, what can be expected but that the strong *caustic oil* and *acrid salt* contained in it will produce incalculable evils. Some of those evils we will here bring into view.

Dr. Maynwaring, in his treatise on the scurvy, asserts, that tobacco causes scorbutic complaints, and that the scurvy has abounded much more since the commencement of the use of tobacco than it ever did before. Old Mr. Salmon, a man most eminent in practical medicine in his day, says: "The ordinary and constant use of *snush*" (meaning snuff) "is of very evil consequences, and induces *apoplexies:* and I am confident that more have died of apoplexy in one year since the use of this *snush*, than have died of that disease in a hundred before the use thereof: and most, if not all, of those I have observed to die of late of that disease, were such as were extreme and constant *snush-takers*."

As to smoking, every medical man knows that the saliva, which is so

copiously drained off by the pipe, is the first and greatest agent which nature employs in digesting food. Chewing likewise drains off this liquid, so necessary to digestion. Darwin, in his Zoonomia, says: "The unwise custom of chewing and smoking tobacco for many hours in the day not only injures the salivary glands, producing dryness in the mouth when this drug is not used, but I suspect that it also produces scirrhus of the pancreas. The use of tobacco in this immoderate degree injures the power of digestion, by occasioning the patient to spit out that saliva which he ought to swallow; and hence produces that flatulency which the vulgar unfortunately take it to prevent." "I saw what I conjectured to be a tumour of the pancreas, with indigestion, and which terminated in the death of the patient. He had been for many years a great consumer of tobacco, insomuch that he chewed that noxious drug all the morning and smoked it all the afternoon."

But smoking and chewing not only carry off the necessary saliva from its proper place; they likewise saturate the tongue and mouth with tobacco juice, thereby vitiating the saliva that remains, which in this pernicious and poisonous condition finds its way to the stomach. Who, in view of these considerations, can wonder that tobacco "fixes its deadly grasp upon the organs of vitality, gradually undermining the health, and sowing the seeds of disease, which are sure, sooner or later, to take root and spring up, carrying away its victim to a premature grave!" Who can wonder at the dizziness, the pain in the head, the faintness, the pain in the stomach, the weakness, the tremulousness, the huskiness of the voice, the disturbed sleep, the nightmare, the irascibility, the mental depression, the epilepsy, and even mental derangement, of the victim of tobacco! "It seems," says Henry H. Brown, "to act directly upon the nervous system, enfeebling, exhausting, or destroying the powers of life. It is also especially liable to diminish the sensibility of the membrane lining the nose, mouth, and stomach; enfeebling the nervous power of this latter organ, so that, instead of promoting digestion, as pretended by many, it has a direct tendency to produce dyspepsia, with all its direful train of symptoms." One of the most eminent surgeons in this country states, that of the cases of cancer of the under lip which had come within his observation, all but three were those of individuals who had, at some period of their lives, used tobacco in some one of its forms. With regard to snuff in particular, De Bomare says: "The least evil which you can expect it to produce is, to dry up the brain, emaciate the body, enfeeble the memory, and destroy, if not entirely, yet in a great measure, the delicate sense of smelling." "Common snuff, in habitual snuff-takers," says a sensible medical practitioner, "has been found to penetrate into the *sinuses* communicating with the nose, and into the *antrum*, where it has formed horrid abscesses: it is often carried down into the stomach; and, by the use of it, the skin is tinged of a pale brown colour." The most delicate females have their complexion entirely ruined by it. Many cases have been observed where the appetite has been almost destroyed and consumption induced, by its excessive use. As to smoking, which some perhaps deem very harmless, J. Borrhi, in a letter to Bartholine, states, that the brain of an immoderate smoker, on dissection, was found dried and shrivelled up, by his excessive use of the pipe.

Instead of preserving the teeth from decay, as many suppose, the chewing or smoking of tobacco wears down or absorbs the grinding surface of the teeth much faster than would otherwise be the case. So active a poison as the smoke or juice of tobacco, continually in contact with the surface of the teeth, must tend to destroy their vitality, and, consequently, to hasten, instead of retarding, their decay.

In a German literary journal are mentioned several cases of vertigo, blindness, and paralysis, caused by the immoderate use of tobacco. Its use as an emetic is extremely dangerous, having occasioned intolerable cardialgic anxieties, violent vomitings, and stupidity. Bomare informs us that it has been used as a remedy in lethargic swoonings; and the patient has been restored to sensibility, only to be racked by a more terrible disorder. Convulsions, accompanied by vomitings, cold sweats, and a feeble and intermitting pulse, with other dreadful symptoms, have been the consequence of its use in the above cases.

"The use of tobacco," says Henry H. Brown, "also produces a dryness or huskiness of the mouth, thus creating a thirst, which in many cases is not satiated with anything short of alcoholic drinks. In this way the use of tobacco often lays the foundation of drunkenness."

"To this dark catalogue of evils," continues he, "arising from the use of tobacco, may be added the turbid nostril, the besmeared lip, the spitting of saliva, imbued with this baneful narcotic, upon the floor, furniture, and even upon the clothes of those around them; and last, though not least, the foul and offensive breath, which, to those whose olfactories have not been perverted by the use of narcotics, is almost insupportable."

The use of tobacco is a waste of money—nay, far worse than throwing it into the ocean, where it would at least do no harm. Some whole families make use of tobacco. Now, suppose a family to consist of six individuals, and their weekly expense for this article to be 1s 6d; this in fifty-four years, at compound interest, would amount to £1000: and when to this are added the concomitants, such as strong drink, idleness, sickness, &c., the amount would probably be increased fourfold. A clergyman recently made a calculation, that a poor family among his parishioners expended nearly one-third of their earnings for snuff and tobacco.

The loss of time is likewise another serious evil connected with the use of tobacco. Some spend three, four, five, and even six hours in twenty-four, in smoking.

In view of all the foregoing evils connected with the use of tobacco, it is not strange that a Turkish emperor, a Russian czar, or a Persian king should forbid its use on pain of death—mitigated, it is true, in the case of snuff-taking, by *merely* having the nose cut off. It is not strange that the Court of Clermont forbade the apothecaries to raise any tobacco, on pain of confiscation and a fine of 1000 livres. Nor is it strange that Pope Urban the VIII. made a bull, to excommunicate all who used tobacco in churches. Such penalties, however, would scarcely be necessary to deter some from its use, were they aware of the intolerable filthiness connected with the tobacco concern. Simon Pauli, physician to the King of Denmark, in a treatise on tobacco, says, that the merchants frequently lay it in bog houses, to the end that, becoming impregnated with the volatile salt of the *excrements*, it may be rendered brisker, stronger, and more fœtid. A dealer in this article acknowledges that he sprinkled his rolls and leaf frequently with stale urine, to keep them moist and to preserve the flavour. A person, whose curiosity led him to see tobacco spinning, observed that the boys who opened out the dry plants had a vessel of urine by them, with which they moistened the leaves, to prepare them for the spinner. What a delicious morsel a quid of tobacco must be!

To the consumers of tobacco let me now say—DESIST! *First;* For the sake of your *health*, which must be materially injured, if not destroyed, by it. *Secondly;* For the sake of your *property*, which, if you are a poor man, must be considerably impaired by it. But supposing you can afford this

extra expense, consider how acceptable the *pence* (to go no farther) which you spend in this idle unnecessary employment, would be to those who are often destitute of bread; and to whom *one penny* would sometimes be as an angel of God. *Thirdly;* For the sake of your *time*, a large portion of which is irreparably lost, particularly in smoking. Have you any time to dispose of—to murder? Is there no need of prayer—reading—study? *Fourthly;* For the sake of your *friends*, who cannot fail to be pained in your company. *Fifthly;* For the sake of your *voice*, which a continuance in snuff-taking will infallibly ruin, as the nasal passages are almost entirely obliterated by it. *Sixthly;* For the sake of your *memory*, that it may be vigorous and retentive; and for the sake of your *judgment*, that it may be clear and correct to the end. *Lastly;* For the sake of your *soul*—Do you not think that God will visit you for your loss of time, waste of money, and needless self-indulgence? Have you not seen that the use of tobacco leads to *drunkenness?* Do you not know that habitual smokers have the drinking vessel often at hand, and frequently apply to it? nor is it any wonder, for the great quantity of necessary moisture which is drawn off from the mouth, &c., by these means, must be supplied in some other way. You tremble at the thought; and well you may, for you are in great danger: may God look upon and save you before it be too late.

It is with pain of heart that I am obliged to say, I have known several who, through their immoderate attachment to the pipe, have become mere *sots*. There are others who are walking unconcernedly in the same dangerous road—I tremble for them. Should this fall into their hands, may they receive it as a warning from God!

"But I take (says one) only a little now and then in complaisance to others." Then you will soon be as great a slave to it as others are. When it is offered to you in this way, think of the conduct of Omiah, a native of Otaheite, who was brought to London by Captain Furneaux: when a certain lord presented him his golden snuff-box, and invited him to take some, the innocent savage, having gained little acquaintance with European refinement, bluntly replied: "I thank you, my lord, my nose is not hungry."

You say, "I am so long accustomed to it, I cannot leave it off." Alas! alas! your case is truly deplorable; you are shorn of you strength, and power is now lacking to bring the expostulations of conscience to good effect. However, try: see what God will do for you.

Should all other arguments fail to produce a reformation in the conduct of tobacco consumers, there is one which is addressed to *good breeding* and *benevolence*, which, for the sake of *politeness* and *humanity*, should prevail. Consider how disagreeable *your custom* is to those who do not follow it. An atmosphere of tobacco effluvia surrounds you whithersoever you go: every article about you smells of it; your apartments, your clothes, and even your very breath. Nor is there a smell in nature more disagreeable than that of stale tobacco, arising in warm exhalations from the human body, rendered still more offensive by passing through the pores, and becoming strongly impregnated with that noxious matter which was before insensibly perspired.

Consider what pain your friends may be put to in standing near you, in order to consult you on some important business, or to be improved by your conversation.

King James finishes his piece on the subject of tobacco as follows: "A custom loathsome to the eye, hateful to the nose, harmful to the brain, dangerous to the lungs, and, in the black stinking fume thereof, nearest resembling the horrible stygian smoke of the pit that is bottomless." I consider the use of tobacco excessively injurious to both BODY and MIND.

CHAPTER XVII.

TIGHT LACING.

THERE are few customs, if any, which exert such a baneful influence on the system as that of tight lacing, and, therefore, cannot be too generally censured. It produces no benefit, real or imaginary, but positive injury; and is the offspring of great weakness, folly, and sin.

The structure of the chest is such that it forms a spacious arched chamber or cavity, in which the heart, lungs, and innumerable arteries, veins, valves, and muscles perform their important offices; contracting, dilating; inhaling fresh air with one set of cells, using part of it to purify the venous blood, and then exhaling the rest through another set; receiving from the veins blood which has gone its round—cleansing it with wonderful art in a few moments, and sending it on again by the arteries to meander through and renovate continually every part of the frame. At every breath the lungs dilate and contract—at every breath the heart receives a tide of blood into one of its divisions, and pours out an equal tide at another; propelling it with a force equal to forty or fifty pounds weight. For all these delicate and and momentous operations, the chamber which nature has provided is exactly of the proper size; not a hair's breadth too small nor a hair's breadth too large. Nay, it is large enough, and the vital movements can be performed only by certain motions of the bones which compose it. The ribs *hinge* into the spine, and the gristles and collar-bones hinge into the sternum; there are joints also where the ribs and gristles unite. By means of these hinges and joints the bones and gristles incessantly play in and out, or up and down, at each movement of the lungs; and to *their* healthful movement the *freedom* of that play is indispensable.

Now a corset, or tight lacing of any kind, fetters the freedom of those bones, destroys all the advantages of the joints and hinges which nature has provided, and thus lessens the room in which the lungs and heart move—besides depriving them of the aid, the impulse they derive from the motion of the bones and muscles. But all this is not half the mischief. The ribs, especially at the joints or hinges, being soft in young people, and the gristles much softer, are compressed by the lacing so as to approach nearer and nearer to the breast-bone in front; sometimes they lap over it and meet each other: nay, there are instances of tight lacing where the ribs have not only passed the sternum and met, but have overlapped each other! Far short of that extreme, however, fatal effects may be expected. Quite a moderate degree of lacing suffices to bring the points of the ribs several inches forward, and to press the sternum inward; narrowing just so much that chamber which was at first not a hair's breadth too large for the lungs and heart to work in—besides stopping the auxiliary motion of the bones themselves. The consequences need not be detailed. That the lungs, thus cribbed and forced to beat in vain against the contracted walls of their prison, should be inflamed and diseased; that the breathing should become short and difficult; that the heart should be subject to unnatural palpitations, and no longer drive the blood with regular and healthful vigour along the arteries; that youth's joyous and active sports must be prematurely abandoned; and that life itself, perhaps, after years of suffering, should retire from its besieged and oppressed citadel, can excite no wonder.

One fact will show, most strikingly, the horrible violence done to Nature by tight lacing. The fabric I have described—composed of the spine, the sternum, the ribs and their gristles—is naturally cone-shaped, smallest at top, and broadest at the bottom, where the diaphragm separates it from the stomach, &c. Now, by lacing, the lower ribs are so compressed—their greater portions being gristle—that the lowest part of the cone is made the smallest. And this it is which makes those foolishly admired waists, *tapering downward*. Let every man who does not wish to marry consumption, carditis, angina pectoris, or dyspepsia, beware of that taper waist.

When (as it always is) the lacing is carried below the diaphragm, injury little less fatal ensues. Then softer and more compressible parts are affected—various muscles, the stomach, and other viscera. I leave you to infer the inevitable mischief to these from reducing them, by force, to half the volume which the all-wise Creator has given. Thus cramped and fettered, it is impossible that their nice and complicated functions can be well performed; and, accordingly, in all my practice I have met with no cases of inflamed stomach, disordered digestion, and dyspepsia in all its forms, half so malignant as those which sprung from tight lacing.

A sense of oppression and weight is always experienced about the breast when the corset is drawn very tight around the body; the breathing is short, quick, and panting; and not only is the blood prevented, in a great measure, from undergoing that change in the lungs by which it is adapted for the healthy nourishment of the various organs, but the actions of the heart are also impeded; violent palpitation of the latter is not unfrequently produced, accompanied with a sense of vertigo, and occasionally fainting. When the corset is worn constantly from early youth, the growth of the ribs is prevented, and the whole capacity of the chest is permanently contracted; and hence spitting of blood, difficulty of breathing, or even more dangerous and fatal diseases of the lungs and heart are induced. Consumption is a very common complaint, the production or aggravation of which may be traced to tight lacing. But it is not merely to the chest that the injurious effects of the corset are confined; it likewise compresses the whole of the upper portion of the abdomen, and, by the yielding nature of this portion of the body, the pressure upon the organs within is even more considerable than that experienced by the heart and lungs. The liver, the stomach, and the intestines in particular, experience this pressure to a very great extent; in consequence, the free and healthy secretions of the liver are prevented from taking place, the stomach and the bowels can no longer perform their functions with proper vigour and regularity, the digestion of the food is impeded, and the bowels become costive and distended with wind. In this manner, in connexion with the injury inflicted upon the lungs, the vigour of the whole system becomes prostrated from the use of corsets; the skin assumes a sallow hue, the countenance a haggard and wrinkled appearance, and all the functions of life are performed imperfectly. It is a fact, that nothing is better adapted to produce the premature decay of beauty and the early appearance of old age than the use of the corset.

There are two other effects produced by this article of dress, which would be sufficient of themselves to induce every prudent and sensible female to abandon it. The first is the injury inflicted upon the breasts, by which their proper developement is prevented, and the nipple is almost entirely obliterated, so that, when called upon to fulfil the sacred office of nurse toward her offspring, the mother finds, to her sorrow, that, from her folly, she has totally incapacitated herself from performing its duties or experiencing its pleasures

The second effect is that produced by the pressure of the corset upon the pelvis and the womb, more especially when worn in early youth or during the first stages of pregnancy. From this cause barrenness, miscarriages, or a stunted and deformed offspring may result, or the pains, the difficulties, and the dangers of child-birth may be increased to a frightful degree.

The injuries inflicted by compression of the vital parts are too numerous to be here recounted. Impaired digestion, obstructed circulation, pulmonary disease, and nervous wretchedness are in their train. A physician, distinguished by practical knowledge of the Protean forms of insanity, asserted that he gained many patients from that cause. Another medical gentleman of eminence, led by philanthropy to investigate the subject of tight lacing, has assured the public that multitudes annually die by the severe discipline of busk and corset. His theory is sustained by collateral proof, and illustrated by dissections.

REMEDY.

The only remedy, as for ardent spirits, is total abstinence. As soon as the corsets are removed the spine becomes weak from want of its customary support—the muscles having lost their action from want of proper exercise. This debility must be fought against. The corset must be left off for several hours every day, and for a longer and longer time daily. While it is off, the body must be rubbed briskly, and as hard as can well be endured, for ten or fifteen minutes at a time, with a coarse towel or flesh-brush; and the patient must ride on horseback, or walk till somewhat fatigued—keeping as erect as possible. The rubbing should be done by the patient as far as practicable, and then by a friend. When the corset is again put on, it should be made no tighter than is absolutely necessary to support the frame; and the degree of tightness should be lessened every day—as it may readily be—while the muscles regain their strength. After dry rubbing for some days, it may be well to apply some cold water with a sponge or the hand, and then rub dry with the coarse towel.

This plan, pursued for a few months—perhaps even for six weeks,—will cause the wasted muscles to swell and strengthen so, that the corset may be laid aside altogether—as it should be the moment that it can be spared.

Mrs. Mary S. Gove, who has written an interesting and useful treatise on Anatomy and Physiology, has the following observations on tight lacing: "I speak of that worse than heathen abomination, tight lacing. Truly it is far more to be deprecated than the hook with which the wretched inhabitants of Hindoostan pierce their flesh, and thus suspend themselves in the air, the victims of a cruel superstition. The suffering and death produced in this way are not to be compared with the misery and death arising from compression. Injuries to those bones which guard the heart and lungs are almost as fatal as injuries to those which guard the brain. The breast-bone may be made to press inward upon the heart in such a manner as to burst it: but more commonly the poor sufferer dies a slow and miserable death, worn out by anxiety and oppression, fainting, palpitations, anxious breathings, quick and interrupted pulse, still more frequent faintings terminating fatally."

Some idea may be formed of the injurious habit of tight lacing, from the great contrast of the annexed figures. Fig. 1 shows the absurd appearance of a female with corsets, in which the vital parts are much compressed. Fig. 2 represents the natural and healthy form, as designed by Nature. Fig. 3 is the waist in a compressed state. Fig. 4 the natural appearance of the waist.



FIG. 1. UNNATURAL FORM.



FIG. 2. NATURAL FORM

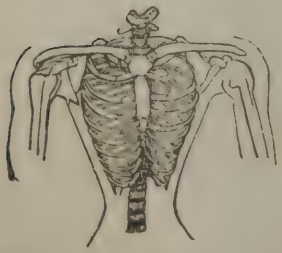


FIG. 3. COMPRESSED WAIST

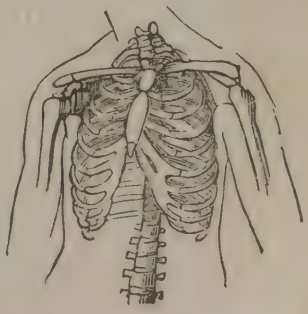


FIG. 4. NATURAL WAIST.

CHAPTER XVIII.

SEXUAL INTERCOURSE, ONANISM, VENERY, ETC.

This subject, from the nature of it, is not generally treated of by writers on health. But none is more important, as it involves consequences of the most serious kind. The semen is the most subtile, vital, and ethereal part of the body. It contributes to the support of the nerves, as well as the reproduction of the human species; and its evacuation is by no means necessary, and, when retained, adds greater strength to the system. The emission of the semen enfeebles the body more than the loss of *twenty times* the same quantity of *blood*, and more than violent cathartics, emetics, &c. Hence excess of this nature produces a dibilitating effect on the whole nervous system, on both body and mind.

It is founded on the observations of the ablest physiologists, that the greater part of this refined fluid is reabsorbed and mixed with the blood, of which it constitutes the most rarified and volatile part; and it imparts to the body peculiar sprightliness, vivacity, and vigour. These beneficial effects cannot be produced if the semen be wantonly and imprudently wasted. Besides, the emission of it is accompanied with lassitude and relaxation, and often with great nervous depression. It therefore should never be evacuated only in a state of superfluity, and even then never unnaturally.

Perhaps the best criterion for married persons is this: *Never indulge in the propensity while it can well be avoided*, for the same reason, that we should never eat till very hungry; any deviation from this rule will be attended directly or indirectly with debilitating effects, especially with the weak and nervous. By this pernicious practice is meant the emission of semen artificially, and which prevails among both sexes to a most fearful extent.

MASTERBATION, ONANISM, SELF-POLLUTION, ETC.

Persons should never practice it (onanism or masterbation) under any pretence, except they wish to expose or ruin their health and morals. Obey the injunction of the apostle, "Flee, youthful lusts." This doctrine is agreeable to the laws of physiology or nature, as well as the law of God. Emitting the semen artificially by the too common practice of onanism, lays the foundation for many incurable complaints, and causes more bad health than even physicians are aware of. It has been shown, by reports of Lunatic Asylums, that it often causes insanity in both sexes.

"The fact, that the ceremony of marriage has been performed, will not save people from the consequence of venereal excesses. The laws of our nature remain the same; and, if violated, we must suffer the consequences. Hundreds and thousands are hurried into a premature grave, or made wretched while they live, by diseases induced by venereal excesses, with no knowledge of their causes" The practice of self-pollution pervades all ranks, male and female. Professed Christians are often among its victims. Some time since, says Mary S. Gove, I became acquainted with a lovely and intellectual young man, who was a student in one of our theological seminaries. His health became so poor that he was obliged to leave the seminary and return to his friends. I saw him lose his reason and become a maniac.

I was satisfied, from all the symptoms in the case, that this sin was the cause of his wretched condition. He died without recovering his reason: and a friend of his, who was in the seminary with him, told me, after his decease, that he was indeed a victim of "SOLITARY VICE; that it caused his death."

A short time since I was conversing with a physician who seemed to feel deeply on this subject. "But," said he, "what can be done; I dare not offend parents by telling them the habits of their children. Only the other day," said he, "I was called to a youth who was destroying himself by this practice, but I dared not mention it. The parents would have been very angry if I had."

Dr. S. B. Woodward, superintendent of the hospital for the insane, has the following remarks on this practice: "For the last four years," says he, "it has fallen to my lot to witness, examine, and mark the progress of from ten to twenty-five cases daily, who have been the victims of this debasing habit, and I aver that no cause whatever, which operates on the human system, prostrates all its energies, *mental*, *moral*, and *physical*, to an equal extent. I have seen more cases of idiocy from this cause alone, than from all the other causes of insanity. If insanity and idiocy do not result, other diseases, irremediable and hopeless, follow in its train, or such a degree of imbecility marks its ravages upon body and mind as to destroy the happiness of life, and make existence itself wretched and miserable in the extreme."

That the evil is wide spread and exceedingly injurious to the young, cannot be denied or doubted. Its effects upon physical strength and constitutional stamina are very prejudicial.

Its influence in prostrating the mind is no less appalling. Consumptions, spinal distortions, weak and painful eyes, weak stomachs, nervous headaches, and a host of other diseases, mark its influence upon the one—loss of memory and the power of application, insanity and idiotism, show its devastating effects upon the other.

It is equally opposed to moral purity and mental vigour. It keeps up the influence of unhallowed desires; it gives the passions an ascendency in the character; fills the mind with lewd and corrupt images, and transforms its victim to a filthy and disgusting reptile.

The evil is common; its danger little known. Let the young beware of it; and those who are in the way of danger, abandon it for ever!

Books have been written filled with the most startling facts on this subject. See Tissot, Graham's advice to young men, and other works. Reader, beware how you thus hazard your health.

The best preventative is abstinence, diet, and regimen. To avoid all animal food and stimulants, and to use vegetables and fruits only. High living excites venery, and leads directly to sensuality and licentiousness.

CHAPTER XIX.

MARSHES.

THE neighbourhood of marshes is peculiarly unwholesome, especially toward the decline of summer and during autumn, and more particularly after sunset. The air of marshy districts is loaded with an excess of dampness, and with the various gases given out during the putrefaction of the vegetable

matters contained in the waters of the marsh. Persons exposed to this air are liable to various diseases, but especially ague, bilious fevers, diarrhœas, and dysenteries. They who breathe it habitually exhibit a pallid countenance, a bloated appearance of the abdomen and limbs, and are affected with loss of appetite and indigestion. Health is best preserved in marshy districts by a regular and temperate life; exercise in the open air during the middle of the day, and by retiring, as soon as the sun sets, within the house, and closing all the doors and windows. The sleeping apartment should be in the upper story, and rendered perfectly dry by a fire lit a few hours before going to bed, and then extinguished. Exposure to the open air should, if possible, not take place in the morning before the sun has had time to dispel the fog, which, at its rising, covers the surface of the marsh. Persons who are intemperate, or use ardent spirits habitually, are those most liable to suffer from the unwholesome air of marshes; such generally perish from diseases of the liver and dropsy.

SEA AIR.

The air upon the sea and in its neighbourhood is generally distinguished by its greater coldness, purity, and sharpness; and is, therefore, in many cases directed to patients whose complaints do not affect their respiration, and who have vigour of constitution enough to derive benefit from the stimulus which such air occasions. A residence by the sea-side is beneficial to persons of a scrofulous habit and debilitated constitution, provided they take care not to expose themselves to cold and damp; and in the fine season, when there is no reason against it, they ought to bathe. In complaints of the chest the use of sea-bathing, and a residence near the sea, are more questionable; and by such an inland rural situation, in a mild equable climate, is to be preferred. A sea voyage has long been famous for its good effects at the commencement of consumptive complaints; and these good effects may be ascribed partly to the good air at sea, partly to the affection of the stomach and skin induced by sea sickness, and to the excitement of the mind, caused by change of scene and occupations.

CHAPTER XX.

HAIR, BALDNESS, AND FASHION.

The hair often falls off the head at an age which is quite unnatural, and which, therefore, constitutes disease. It is caused by excessive action of the brain, such as intense study, great anxiety of mind, afflictions, &c., all which cause unnatural heat or inflammation, and this causes the hair to drop off prematurely. I know of nothing better for this than bathing the head daily with cold water, and rubbing it well with a coarse towel.

Mary S. Gove, a caustic but sensible writer, thus remarks in her excellent lectures on anatomy and physiology: "The hair needs much attention, to have it clean and soft. It is much influenced by the health of the body. You know that, after a severe fit of illness, fever, &c., the hair falls off.

People are often led to try this thing and that thing, to prevent the hair from falling off. Doubtless there are many pounds of hog's fat sold every year

as bear's grease, &c., to cause the hair to grow. Correct habits and daily washing the head with cold water, and combing it with a fine comb, are the best preservatives and restoratives of hair.

If any one's hair should grow while putting on these quack ointments, which after all are only common oil and fat disguised, they may rest assured that it would have grown equally well without them.

It is extremely desirable that the head should be as throughly washed as any part of the body, and that, too, every day. When the hair is very thick, the roots can be washed without wetting the entire length of the hair. The outside of the head has much to do with the inside, whether we know it or not; and serious mischief often results from suppressed perspiration in the head. Much evil results from loading the head with caps and hoods. We should dress the head as light and cool as we can, and be comfortable: it is of vast importance, and those who pursue a contrary course may have ague, *tic doloreux*, and even inflammation of the brain, as a reward for following absurd fashions. But may we not hope yet to see fashions in accordance with the physiological laws of our nature? A majority of the present fashions are an outrage on humanity, and many of them as repugnant to health as they could well be contrived, even had the contrivers sought after the most deleterious mode.

Let us for a moment take a view of some of the "comforts" of a martyr to fashion. See her head loaded with hair, natural and artificial, and over this a cap heavy with ornaments, and under it exhalations and foreign mixtures, in the shape of hair oil, perfumes, &c. Over all is a large, heavy, hot bonnet; and drawn closely over the face is the veil, to keep out the vital air from the poor compressed lungs.

CHAPTER XXI.

BLEEDING, SALTS, AND MINERALS.

Bleeding.—An opinion prevails that it is necessary to bleed occasionally to prevent disease or preserve health. This is a pernicious custom also, and ought be deprecated by all who place any value upon their lives. No person has a drop of blood to lose. This practice, which brings on many diseases, may afford present relief, but the consequences are very injurious. It occasions debility, dropsy, nervous diseases, &c.

Salts.—Many suppose that it is necessary frequently to take salts, to preserve their health. This custom is also pernicious. A viscid, thin, or cold state of the blood follows the frequent use of the neutral salts. Nor are frequent purges of any kind conducive to health. The motto on a certain tomb-stone should be remembered by every person, particularly invalids. "I was well; I took physic, and died."

Minerals.—Those who wish to preserve their health must avoid the use of all minerals internally. They never were designed by the Author of Nature for medicine. They injure the coats of the stomach and intestines, and, instead of removing, create diseases. Mercury, which is so universally in use, is the worst of all. Vegetables should be used in preference, being safer and more congenial to the system.

CHAPTER XXII.

NOSTRUMS AND PATENT MEDICINES.

We deem it necessary to make a few remarks on the numerous nostrums and quack medicines offered for sale. The public are as much duped by taking these preparations, as from minerals or poisons administered undisguisedly. It is astonishing to witness the facility with which many suffer themselves to be imposed upon by the pompous advertisements of some panacea, catholicon, pill, syrup, or universal remedy, which they purchase at a high rate from some pretender to a great secret or nostrum. The most foolish and palpable preparation is purchased and taken with avidity, provided it is kept a secret and highly extolled or puffed.

Our papers are filled with numerous nostrums, highly recommended for the cure of all diseases. "Whoever advertises any medicine," says Tissot, "as a universal remedy for all diseases, is an absolute impostor; such a remedy being impossible, and contradictory in our present state of knowledge. I freely appeal to every sensible man, who will reflect a little on the different causes and symptoms of disease, whether this is not the case."

Did people know the ingredients of the nostrums which they purchase, they would lose all confidence in them. Secrecy, in the minds of the ignorant and vulgar, stamps a great value on every medical preparation. Cheats and impostors know this, and thus take the advantage of such persons to palm upon them their spurious trash.

Some allowance, it is true, must be made, when we reflect upon the want of a correct system of medical practice. Many persons, finding no benefit from *learned*, fly to *ignorant quacks* for relief: but there certainly is no excuse for such wilful ignorance. When a man advertises that he can cure all diseases, or when he publishes *a certain cure* for all complaints, look out for an impostor; no matter how many certificates are appended or exhibited. So, whenever we see a person professing to set or reduce bones, when there is neither dislocation nor fracture, then beware of a shameless interloper and an empyric. Look out also for those who arrogantly profess to have an infallible cure for cancer and some other complaints in all stages; they will generally be found deceivers. The basis of their applications is usually *arsenic*, *mercury*, or some other poisonous article.

Most of the lozenges and worm preparations contain *mercury;* also many other remedies, highly extolled, contain the same deleterious article.

Many of the syrups and panaceas, denominated *vegetable*, contain *corrosive sublimate*.

Many of those persons who profess to cure diseases by *vegetable remedies*, make use of *mercury* almost exclusively, in some form or other. I here give the advertisement of a doctor who is repeatedly resorted to in the city of New York by a certain class of invalids, by way of specimen for puffing some of these nostrums:

"*Salus Populi Suprema Lex.* Dr. H——, having been legally bred to the medicial profession, confines his attention to a particular disease, which engages his most profound attention. His experience is very great; his success astonishing. Strangers may find some difficulty in making a choice. Dr. H—— looks down with conscious pride upon all competition; his real

respectability, skill, and integrity challenge the severest scrutiny. A plurality of offices are provided," &c.

This is given only as a specimen, but the newspapers are full of them.

The following recipe is recommended by a doctor:

"For gout, rheumatism, cramps, contractions of the sinews, &c.—Take a young fat dog, kill him, scald and strip off his hair. Then from a small incision take out the contents of his belly, and put in the cavity two handsful of nettles, two ounces of brimstone, a dozen of eggs, and four ounces of turpentine, well mixed together. Then sew up his belly, and roast him before a fire, and save the oil. This is to be applied to the parts affected, warm, and rubbed in by the fire.

Or, the dog being prepared in the same manner, fill his belly with a pint of red pepper, a pint of fish-worms, the bark of sassafras roots, and three or four green frogs; roast him in the same manner, and save the drippings. This is a valuable ointment for rheumatisms, contractions of the tendons, nervous affections, burns, &c.

That these preparations, although singular, are valuable, no one need doubt."

Some time since a German came to this city and proposed to cure all diseases by inspection of the urine. The old women and girls, as well as men, who imagined they were sick, sent a specimen of their urine for the wise doctor to learn their symptoms, and prescribe for their diseases. After pocketing a good fee, he ordered each one, no matter what was the disease, to be *copiously and repeatedly bled*. The consequence was, that their complaints were exasperated, and several destroyed. I might easily fill a volume on this subject; but a few hints to the wise are sufficient.

Dr. Mallison has the following remarks on nostrums and patent medicines: "One of the greatest evils to which our country is exposed, and one also which has not been felt the least, is the use of nostrums and patent medicines; the number of which that are offered for sale at the present day are almost innumerable; each of which is said to be a specific for nearly, or quite, all of the diseases to which a human being is subject. Now, it is high time the public should open their eyes and resist those gross impositions which have been the cause of many premature and untimely deaths. The honest and unsuspecting sufferers, who are labouring under afflicting diseases, feeling anxious for relief, and being induced by the high recommendations attached to these drugs, and likewise being ignorant of their composition, vainly trust in them for relief, till many times their complaints advance beyond the reach of the most efficacious and judiciously applied remedy This has come under my immediate observation more than once. I am well aware, however, that certificates are sometimes obtained purporting cures to have taken place while the persons were using some of those nostrums; but I am fully inclined to believe that most of such cures were accomplished by the powers of nature overcoming the effects of the disease, and I think that it frequently had to overcome the effects of the remedy also. For it is an absolute fact, of which all persons may satisfy themselves, if they will only take the trouble to inquire of individuals who have been in the habit of using these articles, that nine times out of ten they have either been of no use or actually injurious. And if certificates should be obtained, according to the real effect they have produced, from all who have used these medicines, it is certain that not more than one out of ten would be in support of them. Did the public know the composition of these nostrums, which they certainly ought before hazarding the application of them, they would undoubtedly detest the most of them as odious and baneful. The nostrum called

'Panacea' contains for its base *corrosive sublimate*, upon which all its virtues and activity depend. This is a fact which has been demonstrated by myself and others. Corrosive sublimate is a preparation of *mercury*, of which if a few grains should be taken into the stomach, it would undoubtedly produce death in a short time, if not immediately counteracted. I know of a case of scrofula where the panacea has been given and relied on for a cure, until the young lady has become a spectacle to behold, and in all probability will remain a miserable and distressed object during the remainder of her life, in consequence of this *deleterious mercurial effect*, which is now one of the greatest scourges to our land. The Welch Medicamentum, of which it is said, "if a person uses he will never need nor require the healing art," is nothing more nor less than a compound *tincture of aloes*, diluted and mixed with a few aromatics, more to disguise it than to sooth its operation. The active articles in this preparation are fit for little else than medicine for horses, on which they operate, it is said, very well. A celebrated remedy, recommended and sold for a preventive and cure for fever and ague, contains a quantity of *arsenic*. The virtues of Anderson's Cough Drops depend on the opium which they contain. A preparation sold for the cure of dyspepsia, and which has gained considerable celebrity, is wholly dependant on prussic acid for its active agency. Now, prussic acid is a substance which, if one drop should be applied to the tongue in its concentrated state, would produce death as quick as an electric shock. I have known this article also to be taken until the society of the person, which was once pleasant and delightful, was rendered tedious and disagreeable even to his nearest friend. in consequence of the nervous and hypochondriacal affection it produced. What a curse is this! How loaded with guilt must be the author of such a calamity! It calls for a voice as loud as the thundering of the heavens to speak against it. I have been waiting for an elder practitioner of medicine to take up the pen against these life-destroying agents, until the scenes of human misery which were presented before my eyes, forbid my waiting any longer. Where is the man who knows these statements to be correct, and who has the least spark of a philanthropic spirit, that can sit and hold his peace, and see humanity and innocence thus tortured! I write the above through a feeling sense of duty, knowing that the high recommendations which most of these nostrums have received to be *base fabrications;* and knowing the danger to which a person is exposed by using an article of medicine that he knows not the nature of, and having seen from time to time the injurious effects of these articles, I now candidly say to the public, '*Be particular, as you value your lives and health*, to avoid all nostrums and patent medicines of which you know not the nature nor composition.' And the practising physician who uses or recommends to his patients these articles, only indirectly acknowledges that he has no confidence in his own preparations of medicine, and his ignorance of the HEALING ART."

A vile compound called "Dr. Taylor's Balsam of Liverwort," has obtained great notoriety by constant puffing, forged certificates, &c. To my certain knowledge two persons had their certificates forged and published. The preparation is worthless; the basis being fox glove and opium. Besides, there is no such person as Dr. Taylor: and the proprietor, Dr. Thayer, who amassed a fortune by the preparation, lately died of consumption, the very complaint for which it is so highly recommended. But it seems that the greater the humbug, the greater the patronage.

Pease's Hoarhound Candy, as well as most of the compounds advertised, is a base imposition: and I would ask what kind of a conscience can these

nostrum-mongers have, thus to cheat and gull the sick out of their hard earnings? Why do not the editors of papers expose such villainy? because no doubt their interest is at stake.

"If any one wishes for a medicine that will infallibly cure every ill which flesh is heir to, he has only to take up the nearest paper, and he will assuredly find it advertised." Invalids often fancy that these nostrums benefit them: so did a woman who was in the habit of sending to a neighbouring doctor for pills, for a long period: she seemed to think that she could not live without them. One day she felt quite unwell, and, having no pills on hand, requested her husband to go for some. He started, and on his way he concluded to substitute *sheep's dung*, (which in appearance so nearly resembles pills,) and, instead of going to the *doctor's office*, he went to the *cow-yard* for them. He returned to the house, and his wife swallowed down the supposed pills, and she soon recovered: she was then told what she had taken. It is hardly necessary to add, that she had no more occasion for the same medicine.

"A physician of my acquaintance," says M. S. Gove, "whose mother was obliged to take calomel pills, substituted bread pills, and his mother assured him they had a very powerful effect, and relieved her *immediately*."

A person in Philadelphia, by the name of Swain, a bookbinder by trade, amassed a large fortune by a certain syrup called Panacea, the basis of which is sarsaparilla. It is now like Dr. Solomon's Balm of Gilead, who also amassed a princely fortune—fallen comparatively into disuse. Time and space would fail to enumerate all the quack medicines with which our land abounds.

The distinguished Hoffman lays down as one of his seven rules of general health, "avoid medicine and physicians, if you value your health;" and he might have added, the calamitous, pernicious, and wide spreading evil of the *eternal* and *suicidal* mania of pilling, pilling—drugging, drugging. The whole land is flooded, from Dan to Beersheba, with quack medicines; and there is no knowing what amount of injury they inflict on a diseased community. The evil ought to be met, overcome, and destroyed. People must be convinced of the nature and effects of those compounds puffed into circulation for gain; and besides, there must be placed before them a judicious practice of medicine. If after all this they will take these nostrums, there is no hope of their reformation: let them be humbugged.

CHAPTER XXIII.

ELECTRICITY.

The application of electricity having been recommended for the cure of so many diseases, it becomes proper to make a few remarks upon its nature and effects. Ever since the discoveries made by Doctor Franklin, it has been resorted to by medical men and others, for the alleviation and cure of disease; and in the present day many consider it as a specific for every complaint that "flesh is heir to." I know of no disease for which its advocates have not strongly recommended it; but I have very satisfactory evidence that most of the cures said to have been wrought by its agency must, like many other reputed remedies, be owing more to dame nature than any specific or medicinal effects which it possesses.

I have had ample opportunities, since I commenced the practice of medicine, of testing its efficacy. I have kept a machine and superintended its administration, and, after abandoning it for want of success, I have recommended my patients to several persons in this city, two of whom are professed electricians: but I am now constrained to state, that I am very much disappointed in its operation and effects, having seen very few cures performed in the multiplicity of cases in which it has been applied; and some diseases have been aggravated by it.

In palsy it is said to have been beneficial, and probably has in some cases relieved or cured it, particularly when it has been partial, or confined to a particular part of the system: but in other cases it has proved injurious. It may be serviceable in rheumatism and some other chronic complaints. It has been highly extolled in inflammatory diseases, but there is no evidence that it proves beneficial in any of them; on the contrary, I think that, in general, it aggravates them. It has also been highly spoken of in cancers and scirrhous tumours of the female breast; but I have tried it in these complaints, and have never derived any advantage from it. Some good, no doubt, is sometimes derived from the effect it has upon the imagination. I wish, however, not to dissuade any one from trying it as an experiment in those diseases in which it is highly recommended, and particularly where other means are found unavailing.

CHAPTER XXIV.

THE PASSIONS.

Such is the connexion between the body and the mind, that one cannot be affected without a correspondent or sympathetic affection of the other. But how this union of matter and mind exists, this material and immaterial connexion, is a subject of profound astonishment, which must ever remain a mystery to the greatest philosopher or metaphysician. The most we know is, that the nerves are the connecting medium between the soul and the body. Hence certain passions or mental affections have great influence over the system, and likewise whatever affects the body must, in like manner, affect the mind. It therefore becomes necessary to study the nature, causes, and symptoms of this reciprocal action; but in this place the passions more especially form the subject of inquiry. Those passions which are the most subject to derangement, or to an unreasonable and morbid excess, are *love*, *grief*, *fear*, and *anger*. To these we might add, *joy*, *envy*, *malice*, and *hatred*.

LOVE.

This passion may, with propriety, be divided into two species or kinds. one is a supreme attachment to the Creator; the other, to the creature.

1. *Love to the Creator.*—This constitutes the most noble, the most sublime, and the most heavenly of all the passions that actuate the human breast. That being whom the heaven of heavens cannot contain, is emphatically pronounced *Love:* from which we may infer that this is the most holy and blissful attribute of *Deity*, and the only true source of happiness to men and angels.

The exercise of this passion constitutes a *Heaven*, while its opposite passion, anger, constitutes *Hell* and the sufferings of the damned. There is, therefore, no passion which exercises such a healthful and important an influence as pure, celestial love. It is a fact which has been confirmed by thousands, that the most inveterate and dangerous diseases, such as have baffled the skill of physicians, have been removed by the influence of that love which has followed the pardon of sin. While *Anger*, on the other hand, has brought on fatal and incurable diseases. There is, therefore, the highest incentive for us, both in a temporal and spiritual point of view, to be brought under the influence of this love.

2. *Love of the Creature, or Carnal Love.*—The love of the Creator, just spoken of, begets a correspondent love to all mankind; not a carnal or selfish love, but a pure, disinterested affection, emanating from a divine influence, and, so far as it is exercised, is noble, praiseworthy, and highly beneficial to society. But there is another kind of love, which admits of two species, and both of which are very different in their effects.

1. *Selfish Love.*—This consists in a supreme regard to ourselves, and those only through whom we derive some personal benefit. This originates from low and sordid principles, and is one great cause of the misery in the world.

2. *Carnal Love.*—I now come to speak of that kind of love to which authors who write upon this passion invariably allude. They make no distinction between the several kinds of this passion, but treat of it as emanating from one source. Whereas, it appears evident to me that the most clear distinction should be observed. There appears to be as much difference between *disinterested* and *carnal love*, as there is between any two diverse or opposite passions. A person becomes attached to a female, which he considers *love*, and, in the commencement, it may be *disinterested love*. But the next sensation is a *carnal passion*, which is associated with lust. When this is the case, it certainly, in my opinion, ceases to be genuine love; but how far this latter passion is consistent with the highest and best principle of love, or whether it is permitted in divine wisdom expressly to procreate the human species, I shall not attempt to decide. But I have seen so much misery result through mistaken notions of this passion, by reason of substituting carnal for disinterested *love*, that I wish to draw a clear distinction between the two kinds. It is a question in the minds of many, how far the fall of man from his primeval state of simplicity has deranged this passion, and introduced selfish and carnal love. But it does appear that Deity, on account of the first trangression, permits the present state of things for wise purposes, however much it may differ from his original design.

There is one thing, however, to which I wish to call the attention of the reader, and which points out, and seems to show, an irreconcilable difference between the two kinds of love, viz., *disinterested* and *sensual*. I allude to the testimony and experience of some of the best men, who have lived in any age of the world. They state that the two proceed from sources entirely opposite; that, when spiritual and disinterested love pervades the soul, *carnal love* is entirely overpowered, suspended, and *vice versa*.

It may not be improper here to state, while writing upon the passion of love, according to the common acceptation of the term, that its influence and effect upon the mind is, in every case, very insiduous and gradual; that the subject of it, from a state of indifference, slowly and imperceptibly is brought under its influence, until it becomes fairly seated in the mind; when this is the case, it may be ranked among the strongest passions, and, when

it is disappointed in its object, it becomes a disease and a subject of medical attendance. Every person should be well conversant with this fact, who is desirous of "avoiding *entangling* affections." The passion of love is produced on the principle of association, which begets assimilation or attachment, from which every one may learn the prevention, if not the remedy There is one remarkable fact respecting this passion, which I shall here mention, and that is, that love creates the most irresistible and powerful impression between the ages of twelve and sixteen—a truth which shows the necessity of pointing out proper remedies. Again; it is equally striking, and a fact of great practical importance, that frequently after disappointment in love, or even possession of the object, indifference or hatred succeeds, and the subject of it will soon be again under the influence of this passion toward another person. Perhaps, however, I should in some measure except the female sex. For the late Aaron Burr, after having taken leave of an elderly lady who was much attached to him when young, thus remarked: "That woman loves me yet, for a woman's love never dies."

Symptoms.—The symptoms of love, when it creates disease, are well known: melancholy, love of solitude, sighing, wakefulness, &c. It sometimes has a great influence upon the system, such as dyspepsia, hysterica, hypochondriasis, fever, and mental derangement—the latter of which has sometimes ended in suicide, while the others have occasionally terminated fatally.

It is remarkable, that those who have been cured of any of the diseases from love, particularly by medicines, recover without possessing any affections for the persons whom they formerly loved. It is stated that this was the case with one of the princes of Conde. He said that his physicians had, by their remedies, drawn off all his love for his mistress.

Treatment. Avoid the company of the object.—When a cure is desired for love, an opposite course must be taken from that which caused it. Association first begat assimilation, as stated above: it now becomes necessary, in order to cure it, to pursue an opposite course, and keep from the company of the object beloved. By seeing the person often, it only adds fuel to the fire. A voyage or journey should be undertaken; for absence has been justly styled "the tomb of love."

Medicine.—If the passion has become so seated as to create any specific disease, appropriate remedies must be prescribed. These should be adapted to particular symptoms. The stomach must be cleansed, the bowels regulated, and a restorative course of treatment pursued.

Divide the Affections.—Let the person labouring under this passion, and who wishes to be cured of it, mix in cheerful company, and let him or her select from the multitude another object, whose attractions shall engage the attention; by this means the affections become divided between the two objects, and the passions become weakened or entirely destroyed. Ovid speaks of this, and compares it to a river or stream which has dried up after it has become divided.

Recreation and Rural Scenery.—Recreation and rural scenery will contribute very much to the destruction of this passion. Let the person travel and behold the beauties of nature. Let the flower-garden be cultivated. Let cheerful and amusing books, of a moral tendency, be perused.

Indignation.—I wish to suggest or recommend nothing inconsistent with morality or religion, nor anything calculated to excite any of the passions. But, in a medical point of view, I trust I shall be excused, if I recommend one passion less violent, more transient, and less injurious in its effects, for the purpose of removing another. I therefore would recommend the indul-

gence of a suitable degree of spirit and indignation against the object loved, sufficient at least to remove the *inordinate degree* of love; not, however, to the exclusion of friendship and benevolence.

In accordance with this, I would advise the person labouring under this passion to indulge the opposite passion, viz., dislike or aversion. Let his or her ill treatment, deformities, and defects be constantly brought to mind, and in this way victory may be obtained. Many have been perfectly cured by this alone.

Let the person under the influence of this passion exercise fortitude and resolution. Let him spurn the thought of being injured by becoming a dupe to this puerile, slavish, and transient passion, which subsides as soon as the object is possessed, and which is often followed by indifference, and even disgust, wrangling, quarrelling, care, burden, perplexity, to which "single blessedness" is a stranger, to say nothing of the grief and sorrow entailed by a numerous, and perhaps wicked, offspring. Think of the troubles from which you will be exempted, by living in a single state, and enjoying the company of your friends, without your affections being so divided as to render their company irksome.

Morality and Religion.—Above all, let morality and religion be another incentive to you, to banish this passion for the creature, and to place your affections upon your Creator. Think how much better you can serve Him, divested of the cares of a family. Think of the fact that is so much complained of by Christians, that as soon as they get married their cares and affections are such, that they appear to lose all love for their Creator.

Let Hope in the Lover be extinguished.—A celebrated writer has the following pertinent remarks upon this passion: "As hope and love are born together, so they can only die together." Uncommon pains, therefore, should be taken, in curing love, to extinguish every spark of hope in a lover. This advice is given with singular good sense and humanity by Dr. Gregory, in his legacy to his daughters, upon the subject of courtship and marriage.

GRIEF.

Few, if any, of the passions are more severe or more injurious than grief. Fear and anger, though more violent, are of shorter duration. Grief consumes slowly, and undermines the constitution, and is much more permanent in its effects than most any of the passions; and, where it is very deeply seated, sometimes proves fatal.

Symptoms.—The symptoms of grief are languid circulation; contraction of the heart; slow, weak, and unequal pulse; paleness, fretfulness, loss of sleep and appetite, flatulence, and dyspepsia. In females it is sometimes accompanied with suppressed menstruation; indeed all the functions of the body become impaired by the indulgence of this passion; and such is the effect on the mind, that the subject of it cannot enjoy health.

A very sudden and powerful attack of grief causes hysteric and apoplectic fits, and sometimes it ends in loss of memory, marks of premature old age, melancholy, and insanity.

Dissections of those who have died of grief discover congestion in, and inflammation of, the heart, with a rupture of its auricles and ventricles.

Grief produces contraction of the womb, miscarriage, &c.; it destroys the circulation of the fœtus; produces a relaxation of the muscles of the spincter and of the bladder.

There is another peculiar symptom of grief not generally noticed, which

is, that of profound sleep. A mother that has just lost a child often sleeps profoundly. The keeper of Newgate, in London, states, that criminals sleep soundly the night before their execution. The son of General Custine, in Paris, slept nine hours the night before he was led to the guillotine. The disciples of our Saviour slept during his agony in the garden, in consequence of "sorrow having filled their hearts."

Treatment. Anodynes.—When grief seizes a person suddenly and powerfully, very much shocking the system, an opium pill may be administered. Should paroxysms or urgent symptoms occur, it may be repeated.

Purgatives.—Should grief so prey upon the system as to create great excitement, a purgative may be administered: while it lessens the excitement, it will also obviate costiveness, a very attendant symptom upon this passion.

Silence.—Conversing much with persons labouring under this passion often exasperates it. Silence is better than much conversation.

There is science, says a writer, as well as sympathy in this silence; for in this way grief most rapidly passes from the bosom of the sufferer into that of his friend.

Solitude.—Grief is generally increased by solitude. When a person is afflicted with grief, he feels much more distressed when he is alone, no doubt by dwelling on the cause of it. Solitude should, therefore, by all means be avoided.

Friends.—A person seized with grief almost invariably flies to his or her nearest friend, to unbosom and unload the mind of its sorrows. Such a friend, if he is one indeed, receives a portion of the sufferings, which immediately lessens the affliction. Therefore the company of friends should be resorted to.

Religion.—The greatest consolation is, no doubt, derived from religion. The sufferer should remember well that afflictions arise not from the dust; that every event is permitted by Divine Providence, and under his superintendence, and that his afflictions or bereavements have been wisely dispensed, even for his or her individual benefit, however heart-rending the present trial may be. We should recollect that the Creator deals out afflictions and trials to the children of men *with the same scrupulous exactness as the apothecary or physician deals out his medicines;* and that there is perhaps little, if any, difference in the aggregate between the various classes of society as regards their amount of suffering. The poor, who are so liable to complain of their condition in life, experience less afflictions than the rich, for various reasons which might be assigned.

Change of scenery.—The mind in distress may be much relieved by a change of scenery. Let there be a constant succession of new ideas and new objects to divert the attention. Travelling, sailing, the study of any art or science, reading or writing on interesting subjects, &c., will sooner assuage grief than many other amusements. When the mind has nothing else to think about but its misfortunes and calamities, it is sure to indulge in grief. Some business, therefore, should be rigidly followed.

Persons suffering under any misfortune should carefully abstain from the use of ardent liquors, as they are apt to fly to it for relief, and thus become intemperate.

In communicating sad tidings, it never should be done all at once, but gradually, that the mind may be prepared for it

ANGER.

This passion exerts a most violent and powerful effect on the system.

When it ascends to rage and fury, or when it is protracted into malice and revenge, it becomes a sin, and proves very destructive to health.

Symptoms.—A paroxysm of anger produces a determination of blood to the brain; fulness of the bloodvessels of the face; redness of the eyes; foaming at the mouth; volubility or total suppression of speech; agitation of the fists; stamping of the feet; and uncommon bodily strength. It sometimes causes hysteria, hæmorrhage, and mania. It affects the sanguiferous and nervous system, produces vomiting, and often breaks a bloodvessel, or brings on apoplexy. It causes a return of epilepsy; bleeding at the nose; affects the secretions of the liver; induces colic, diarrhœa, faintings, and convulsions.

Treatment.—When that portion of the brain which gives rise to a certain passion or emotion becomes unduly excited, the balance of cerebral power is lost, and there is an undue excitement, which is manifested in anger, despondency, or some other passion.

I have witnessed persons under great passion or grief, who were frantic, and in a few moments, after conversing with them calmly, the mind was restored to its proper tone. Therefore the best remedy in all cases of passion, as well as nervous diseases and insanity itself, is to apply to the brain a counterirritant, or to make an opposite impression; and this may be denominated the cordial of good or kindness, which overpowers the impression of evil or morbid excitement.

The remedies for anger, when it becomes a disease, may be divided into two classes: First; Such as are proper during its paroxysms. Second; Such as are proper, during their intervals, to prevent a recurrence.

1. *During a paroxysm.*—Let a person labouring under this passion drink a tumbler of cold water: it gives time for the rage to subside, and also gives time for reflection. Cold water thrown over the whole body has cured a paroxysm of anger. It never fails to part two contending fowls or dogs.

Resolution.—Let the whole powers of the mind be concentrated instantaneously to form a resolution not to indulge in the passion of anger. This is the most powerful of every other means to suppress it.

Absence from the exciting cause.—As soon as a person is attacked with a paroxysm of anger, let him immediately absent himself from the exciting cause of it, except there is a strong probability of a reconciliation by seeing the person who has occasioned it. When this is the case, be resolved to meet the person with as much calmness as possible, and let the subject be conversed upon. In such cases the difficulty is often settled, and a greater friendship follows.

2. *Means of preventing a recurrence of Anger.*—Those who are very passionate should avoid all stimulating drinks and liquids, as nothing tends more to inflame the passion of anger than these. It is owing to this that even friends, when they assemble together and drink ardent spirits, often begin to wrangle, quarrel, or fight. Dr. Arbuthnot states that a milk and vegetable diet has cured a very angry disposition.

Silence.—Whenever a person becomes very angry, let him be silent, and neither say nor do anything to fan the flame of anger.

Science or education.—These have a great tendency to eradicate from the breast the baneful passion of anger. They teach the mind that there is true wisdom and philosophy in abstaining from the indulgence of such an unholy and pernicious passion.

Opinion of others.—Those that are subject to fits of anger should recollect, in their calmer moments of reflection, that, when they exhibit a paroxysm of anger, they render themselves as ridiculous as a drunken man.

"It will be useful for persons subject to the criminal degrees of this passion," says Dr. Rush, "to reflect that it is not only contrary to religion and morals, but to good manners. The term gentleman implies a command of this passion above all others."

Religion.—There is nothing so powerful to allay the tumults of this mighty passion as religion. It is this alone that seems fully capable of eradicating it from the human breast. It is remarkable that real Christians have been incapable of showing the least anger under the most aggravating circumstances. Therefore, whoever labours under this besetting sin, should pray earnestly to God for its removal.

Medicine.—When anger causes bilious and hepatic diseases, appropriate medicines must be administered, which will be hereafter mentioned.

FEAR

Fear, which was no doubt implanted by the Creator for a wise purpose, exerts a great influence over the animal economy. Fear and anxiety, by depressing the spirits, not only dispose us to diseases, but have a tendency to aggravate them, or even render them fatal.

Symptoms.—The effects of fear, when it acts suddenly upon the system, are tremours, quick pulse and respiration, globus hystericus, a discharge of urine, diarrhœa, and sometimes an involuntary discharge of the fæces, fever, convulsions, fainting, madness, and death. Dr. Brambilla relates the case of a soldier in whom fear produced not only a fever, but a mortification from a blister on the leg, which destroyed his life. Besides these general effects of fear, it acts in a peculiar manner upon the hair of the head. First; in causing it to stand perpendicular. This has been described by Virgil and Shakspeare. Secondly; in converting it suddenly to a gray or white colour; and, thirdly, in causing it to come out by the roots and to fall off the head. Of this Dr. Huch states, that he knew an instance of a gentleman who was in Lisbon at the time of the great earthquake, in 1755.

Other effects of fear have been lately noticed. The earthquake which took place on the shores of the Mississippi, in December, 1811, produced silence or great talkativeness, and moping stillness or constant motion, in different people.

Treatment.—Although fear appears to be in a considerable degree constitutional, yet it may be moderated or measurably overcome, by habit, the exercise of reason, philosophy, and religion.

Those subject to this passion should endeavour to exercise fortitude of mind. They should reflect that they have no just grounds or reason to fear anything which can happen unto them, provided they are in the line of their duty, and act conscientiously; that nothing will be permitted to overtake them but such as is for their benefit. In a word, they should endeavour to exercise perfect resignation, ever bearing in mind the following lines of the poet:

"Through all the downward tracts of time
God's watchful eye surveys;
O, who so wise to choose our lot,
Or regulate our ways.

I cannot doubt his bounteous love,
Unmeasurably kind;
To his unerring, gracious will,
Be every wish resigned.

Good when he gives, supremely good,
Nor less when he denies;
Even suff'rings from his sov'reign hand
Are blessings in disguise.

Here happiness cannot be found,
The honey 's mixed with gall,
'Midst changing scenes and dying friends,
Be thou my all in all."

Fear of Thunder and Lightning.—Dr. Rusn has tne following judicious remarks upon the prevention of fear in thunder storms:

"The remedies for it are,

1. Living in a house defended by a lightning rod.

2. Sitting in the middle of a room, and remote from the doors and windows of a house not defended by a lightning rod.

3. A citizen of Philadelphia, who was under the influence of this fear, obviated it in a degree by closing the doors and windows of a room, and sitting with a lighted candle in it. By this means he avoided the sight of the lightning and the anticipation of the noise of the thunder which usually follows it.

4. A lady of respectable character, formerly of this city, usually fainted with terror during the time of a thunder-gust, and discovered, by a livid countenance and cold and clammy sweats, the signs of approaching death. She was apparently kept alive by pouring into her stomach three or four wine glasses of Jamaica spirits: it was remarkable she never was intoxicated by it, and that it was disagreeable to her at all other times.

5. I crossed the Atlantic Ocean with a lady, in whom an acute headache was always induced by thunder. It left her as soon as the thunder ceased. Her only remedies for it were quietness and silence. It is probable a large dose of laudanum, taken upon the appearance of a thunder-gust, would have prevented this headache, as well as obviated the terror mentioned in the two preceding cases, more effectually than a close room artificially lighted, or a large quantity of ardent spirits.

2. The fear which is excited by darkness may easily be overcome by a proper mode of education in early life. It consists in compelling children to go to bed without a candle, or without permitting company to remain with them until they fall asleep.

3. The fear of ghosts should be prevented or subdued in early life, by teaching children the absurdity and falsehood of all the stories that are fabricated by nurses upon that subject.

4. The fear from speaking in public was always obviated, by Dr. John Hunter, by taking a dose of laudanum before he met his class every day.

5. The fear from sailing, riding, and from certain animals and insects, may all be cured by resolution. It should be counteracted in early life. The existence of it always shows a defective education. Peter the Great, of Moscovy, was born with a dread of water. He cured it by throwing himself headlong into a boat when obliged to cross a river. The horror he felt in doing this often induced syncope. He finally conquered his dread of water so as to cross seas in pursuit of the great objects which characterized his life and reign.

In cases of sudden fear from any cause, holding the breath, coughing, or hawking often give immediate relief; they impart tone to the brain, by promoting a determination of blood to it, and thus infuse vigour into the mind.

To obviate fear from all its causes, great advantages will arise from creating

counter motives in the mind. The fear of death in a battle is overcome by the powerful sense of glory or shame. The fear of the pain of an operation, such as drawing a tooth from a child, is overcome by the expectation of receiving afterward a piece of money, and the prospect of all the pleasures it will procure.

Great advantages may likewise be derived for the cure of fear, by a proper application of the principle of association. A horse will seldom be moved by the firing of a gun or the beating of a drum, if he hears them for the first time while he is eating; nor will he start or retire from a wheelbarrow, or a millstone, or any other object of that kind, after being once or twice fed upon them. The same law of association may be applied in a variety of instances to the human mind, as well to the prevention as cure of fear."

OF JOY.

"This emotion," says Dr. Rush, "is attended sometimes with pain in the region of the heart, a change in the voice, tears, syncope, and death. Mr. Bruce mentions another symptom of excessive joy, and that is thirst, which he felt in a high degree when he reached the long sought-for head of the Nile. He gratified it, he tells us, by drinking the health of his sovereign, George the Third, and of his mistress, by a draught from the fountain of that celebrated river.

Joy is most intense when it has been preceded by fear. The Indian chief, Logan, has designated this form of joy in his eloquent speech, preserved by Mr. Jefferson in his notes upon Virginia, when he declares that "he knew not the joy of fear."

There are many instances upon record of death being induced by a sudden paroxysm of joy. The son of the famous Leibnitz died from this cause, upon his opening an old chest, and unexpectedly finding in it a large quantity of gold. Joy from the successful issue of political schemes or wishes has often produced the same effect. Pope Leo the Tenth died of joy, in consequence of hearing of a great calamity that had befallen the French nation. Several persons died from the same cause, Mr. Hume tells us, upon witnessing the restoration of Charles the Second to the British throne: and it is well known the doorkeeper of Congress died of an apoplexy, from joy, upon hearing the news of the capture of Lord Cornwallis and his army, during the American revolutionary war.

During a paroxysm of joy, if it be attended with danger to life, a new emotion or passion should be excited, particularly terror, anger, fear, or grief Perhaps the effusion of cold water might have that effect. The stimulus of artificial pain should likewise be tried: it should be of a nature calculated to produce the most prompt effects.

The morbid state of joy should be prevented by imparting the news which we expect will create it, in a gradual manner, and with the alloy of some unpleasant circumstances.

Connected with joy, but produced by different causes, is LAUGHTER. It is a convulsive disease, and sometimes induces a rupture of a bloodvessel in the lungs, spleen, or brain. I have seen bleeding of the lungs induced by it, which had a fatal issue. Two sudden deaths are upon record from it—the one of Chrysippus, an ancient Greek philosopher; the other of a pope It was induced in the latter, while he was confined to his bed with a slight indisposition, by seeing a tame monkey put on a part of his pontifical robes Excessive laughter, when not attended with these fatal effects, is often fol lowed with a pain in the left side, hiccough, and low spirits.

The remedies for a paroxysm of laughter should be fear, terror, or any other counter impression. Pinching the body, or the affusion of water over it, is calculated to produce the same good effects. Laudanum seldom fails to relieve the pain, hiccough, and low spirits which sometimes follow it."

ENVY, MALICE, AND HATRED.

The indulgence of these baneful dispositions is attended by injurious effects on the moral and physical part of man. They eat and corrode the mind like a canker. It has been said, by an inspired writer, to resemble "rottenness in the bones." It emits its poison not only against friends, but likewise those who have rendered the subject of it the greatest favours. Where such an unholy disposition dwells, the mind cannot enjoy peace. It is, therefore, best to use every exertion to overcome it, and, by repeated attempts, we may succeed. I know by experience that it is difficult not to cherish unfriendly feelings toward those whom you have benefited, and, instead of gratitude from them, receive ill treatment and injury. I have, with others, experienced a large share of such conduct, and know how very aggravating it is; but still, it is a duty to submit as patiently as possible, and endeavour to overcome evil with good, by forbearance and charity Let the revengeful man write down his feelings on the occasion, and afterward peruse them. But the true antidote is to be found in religion, which enables us to love our enemies.

There is now and then a *torpor of the passions*, the reverse of the diseases in those which have been described. Instead of being unduly excited, they are devoid of all sensibility and irritability. Those who are thus affected, love and fear nothing: they are strangers to grief and anger; they envy and hate nobody; and they are alike insensible to mental pleasure and pain. "I was once consulted by a citizen of Philadelphia," says Dr. Rush, "who was remarkable for his strong affection for his wife and children when his mind was in a sound state; he was occasionally afflicted with this apathy, and, when under its influence, lost his affection for them all so entirely, that he said he could see them butchered before his eyes without feeling any distress, or even an inclination to rise from his chair to protect them.

This paralytic state of all the passions continues during life in some people. A physician of great eminence, who died some years ago in England, declared, upon his death-bed, that he had never known what it was to love man, woman, or child.* But we sometimes meet with this *disorder* in a partial state. Thus, there are men who have never loved; others who have never feared; others who have never shed a tear; and others in whom injuries have never excited an emotion of anger. In such persons the mind is in a mutilated state; for man, without all his passions, is an imperfect being, both as to his duties and happiness.

The remedies for this torpid state of the passions, whether general or partial, should be suited to the state of the system. Purgatives will be proper, if the bloodvessels are oppressed. In a contrary state of the system, powerful stimulants, particularly pain, labour, and the cold bath, are indicated."

In conclusion I would observe, that the due regulation of the passions contributes much to health and longevity. The animating passions, such as joy, hope, love, &c., when kept within proper bounds, gently excite the nervous influence, promote an equable circulation, and are highly conducive to health; while the depressing affections, such as fear, grief, and despair,

produce the contrary effect, and lay the foundation of the most formidable diseases.

INFLUENCE OF THE MIND ON THE BODY, PASSIONS, ETC.

Bad news weakens the action of the heart, oppresses the lungs, destroys the appetite, stops digestion, and partially suspends all the functions of the system. An emotion of shame flushes the face, fear blanches, joy illuminates it, and an instant thrill electrifies a million of nerves. Surprise spurs the pulse to a gallop. Delirium infuses great energy. Volition commands, and hundreds of muscles spring to execute. Powerful emotion often kills the body at a stroke: Chilo, Dingoras, and Sophocles died of joy at the Grecian games. The news of a defeat killed Philip V. Muly Murdock was carried upon the field of battle in the last stages of incurable disease: upon seeing his army give way, he rallied his panic-stricken troops, rolled back the tide of battle, shouted victory, and died. The doorkeeper of Congress, as before stated, expired on hearing the surrender of Cornwallis. Eminent public speakers have often died in the midst of an impassioned burst of eloquence, or when the deep emotion that produced it had suddenly subsided. Lagrave, the young Parisian, died when he heard that the musical prize for which he had competed was adjudged to another. Hill, at New York, was apprehended for theft, and taken before the police; though in perfect health, mental agony forced the blood from the nostrils, and he was carried out, and died. Emmet, the noted lawyer, it is stated, fell and died suddenly, while pleading at the New York bar, under great excitement or emotion of eloquence.

I recollect of having been called to two females in this city, both of whom took laudanum or opium, to destroy themselves. Anger was the exciting cause of it. One was in paroxysm of anger when I first saw her. I began to converse and reason with her on her conduct, when composure took possession of the mind. I administered large emetics, and soon after fish or lamp oil, with plenty of warm water, which caused vomiting, and thus prevented both of them from committing suicide. Let every one learn to govern the temper, lest it prove ruinous. I once saw a person who threw himself into the dock, and kept himself under the water till he was drowned, merely because his wife paid the carman his cartage, contrary to his wishes. The mind must be vigorously disciplined, in order to overcome anger, revenge, and other passions. For want of this, how many thousands have been murdered and otherwise injured or destroyed! *Self* must be denied, or destruction follows. What a man sows, that will he reap, both in a *moral* and *physical* point of view.

CHAPTER XXV.

RULES FOR THE PREVENTION OF INFECTIOUS DISEASES AND CONTAGION.

It is no doubt the case that very many infectious or contagious diseases may be averted or completely destroyed, by adopting proper means for this purpose.

Separation or removal.—When any person is attacked with a disease which is contagious or supposed to be contagious, he should be immediatel

removed to a place established expressly for that purpose; or, if convenient or desirable, let him be taken to a separate and remote part of the house, distant from the rest of the family, into a clear and well ventilated room The upper portion of the house is preferable. First; because it is drier and, secondly, because it permits the contagious effluvia arising from the body of a patient more readily to pass off, as the current of air more rarified is naturally upward.

Separate apartment for the Sick.—In all boarding-houses, and where a great number of persons are crowded together, there ought to be a separate room for those that are sick. Where there is not a suitable place, one should be provided in the vicinity or neighbourhood.

Intercourse with the Sick.—There should be as little intercourse with the person affected with any contagious disease as possible. No one should be allowed to visit him, except the nurse or immediate relatives, and those should be careful to keep at a proper distance from the bed, that his breath and the vapour arising from his body may not be inhaled. A handkerchief, wet with vinegar, may be held occasionally to the nose while in the room. Those who are obliged to continue in the room should, as much as possible, avoid fatigue, be very temperate, and occasionally take a dose of physic. Let them eat plenty of raw onions: also apply onions to the feet and other parts of the body of the sick person.

It is generally admitted that fear operates as a predisposing cause in the production of infectious diseases. It therefore becomes necessary to command as much fortitude and resolution as possible, as well as to inspire confidence in the mind of the patient.

Ventilation.—The greatest attention should be paid to a free and constant circulation of air in the apartment or apartments. The upper part of the window or the door should be left open; but a current of air direct upon the person should be avoided. If the weather should be very windy, let muslin or gauze be hung before the window. Nothing is more important than pure air.

Cleanliness.—A due regard should also be paid to cleanliness. The clothes of the sick must be often changed, and the room kept perfectly clean. Haygarth lays down the following rules to prevent the spread of infectious diseases:

1. "The chamber in which the patient lies must be kept clean and freely ventilated. No bed-curtains must be allowed to be drawn around the patient.

2. "Dirty cloths, utensils, &c., should be often changed, and immediately immersed in cold water; and washed clean when taken out.

3. "The discharges from the patient must be instantly removed; and the floor around the patient should be rubbed clean once a day with a wet cloth.

4. "Avoid the current of the patient's breath, as well as the effluvia which ascends from his body and from the evacuations.

5. "Visiters ought not to go into the patient's chamber with an empty stomach; and in doubtful circumstances, on coming out, they should blow from the nose and spit from the mouth any contagious poison which may adhere to these passages."

Fumigations.—In order to remove any offensive or disagreeable effluvia, and to destroy the power of contagion engendered, fumigations may be used. The following: Take a suitable quantity of common oil, put it into an earthen vessel of any kind, and add sufficient sulphuric acid or oil of vitriol to moisten it. A purifying gas will be disengaged and diffused through the room. This is sufficient for small apartments; but for hospitals the vessel

may be placed over a moderate degree of heat. Clothes may be submitted to this gas, and other places that are foul and suspected of contagion.

Another excellent method to purify rooms where there is contagion is, to pour vinegar on a heated shovel or peal. This should be frequently done, and particularly when anything passes the bowels of the sick person. Green plants may be kept in the apartment; and the fumes of bitter herbs, bruised or boiled, are also excellent preventives. The hands, face, and body should be occasionally bathed with vinegar, and the temperature of the body should not be too great, as it tends to putrefaction. Whatever diet is given should be of an antiseptic nature, nutritious, and altogether vegetable.

Sweet Oil a preventive.—For the prevention of the plague it has been recommended to bathe the body with sweet oil, as it has been ascertained that among a million of inhabitants carried off by the plague in Egypt, not a single oil-man, or those who worked in oil stores, were ever infected with the disease; their clothes and bodies were besmeared with oil. I therefore recommend those exposed to any contagious disease to dip their flannels in sweet oil, wring them out, and constantly wear them in this state, thus saturated with the oil: also take an ounce of the oil once or twice a week, and observe universal temperance.

Fever Institutions.—These are of great importance, and ought to be established near every large town and city, being the most likely to prevent the spreading of contagious diseases, under proper regulations, with proper medical attendance and nursing.

Rigid Quarantine.—It becomes necessary for our municipal authorities to pay no regard to the disputed points of contagion and non-contagion; but to maintain a rigid quarantine upon all vessels coming from those parts where contagious diseases are from time to time prevalent.

Secret of destroying Contagion.—The great secret of destroying contagion and preventing its increase unquestionably is, to *dilute the infected air or atmosphere* by ventilation, cleanliness, fumigation, separation of the sick, or those suspected. There is every reason to believe that this will not only prevent the spreading of contagion, but entirely destroy the powers of it.

Chloride of Lime.—In conclusion I would state, that the chloride of lime possesses very antiseptic, disinfecting, and purifying properties, which render it highly important in the preservation of health and prevention of contagion, by decomposing putrid effluvia of every kind, and preventing the generation of epidemic diseases, or arresting their progress when they already exist. It destroys the poisonous exhalations from privies, sewers, and docks or ponds left bare at low water; also of vaults, cellars, store-houses, hospitals, prisons, market-houses, gutters, &c. It is valuable for purifying the air of wells, mines, slaughter-houses, drains, stables, the holds of vessels, and the rooms of the sick. It prevents the fetid smell from dead bodies previous to burial, and such as are disinterred for judicial investigation; also the fetid effluvia from dirty clothes.

Chloride of lime immediately destroys the offensive smell from any source.

Method of using it.—The method of using it is very simple. A little of it may be placed in a saucepan, and kept in any place where there is contagion, or any disagreeable effluvia whatever; or the apartments may be sprinkled with the article. The fetid smell which arises from the excrements of the sick, or any other exhalation, is immediately destroyed by sprinkling a small quantity in the room. As a means of removing the

sources of disease in cities and villages, chloride of lime demands the attention of the guardians of the public health.

CHAPTER XXVI.

RULES FOR THE PRESERVATION OF HEALTH AND PROMOTING LONGEVITY. BY SIR RICHARD JEBB, LATE PHYSICIAN TO THE ROYAL FAMILY.

1. The greatest preservatives of health are exercise and temperance; these may be practised by all ranks and at any season or place. Exercise throws off all superfluities, and temperance prevents them: exercise clears the vessels and promotes the circulation of the blood.

2. A due degree of exercise is absolutely necessary to health.

3. Walking is the best exercise for those who are able to bear it; riding for those who are not

4. The air we breathe is of the utmost importance to our health.

5. Every one that would preserve health should be as clean and sweet as possible in their houses.

6. Nothing conduces more to health than abstinence and plain food.

7. All malt liquors are hurtful; so are strong tea and coffee.

8. Costiveness is very hurtful to health; therefore care should be taken to remove it at the beginning by cool, gentle purges.

9. Obstructed perspiration (commonly called catching cold) is the great source of all diseases. Let it, therefore, be removed immediately by gentle sweats.

10. Physic, for the most part, is only a substitute for exercise and temperance.

11. Blistering, cupping, bleeding, &c., are seldom requisite, except to the idle and intemperate; they are only expedients to make luxury consistent with health.

12. The apothecary is chiefly employed to counteract the cook and vintner. Nature delights in the most plain and simple diet.

13. Most people are the best judges of their own constitution, and know what kind and what proportion of food agrees with them best.

14. Artificial provocatives only create a false appetite.

15. If you cannot do without wine, never drink more than a few glasses.

16. A particular and very intelligent friend of mine (says Sir Richard) was extremely partial to what is called good living; and, having a wife, of whom he was particularly fond, and a numerous offspring, he was desirous of living long enough to see them settled in the world.

17. He was, however, of a very infirm constitution, till he was about fifty years old, when, requesting my advice how to obtain that valuable end, I strongly recommended him to persist in an exact course of temperance and exercise, by duly attending to which, he recovered a sound and perfect state of health.

18. At the period I am speaking of a train of infirmities had made great inroads in his constitution, and he had fallen into different kinds of disorders, such as the colic, gout, spasms, &c., and continual slow fever; so that the best delivery he had to hope for (except for the sake of his numerous family) was death to end his pains and misery.

19. The result of my advice, which I here give in his own words, is as follows: When, says he to me, I resolved firmly to live a temperate life, I soon found myself entirely freed from

all my complaints, and have continued so even to this day, and I am now more than one hundred years old.

20. I am now convinced that we should consider a regular life as a physician, and which is our natural and proper physic, since it preserves us in health, makes us live sound and hearty to great age, and prevents us dying of sickness through a corruption of humours.

21. Whoever, trusting either to his youth or strength of constitution, slights my observations, must live in constant danger of disease and death.

22. I am now fully convinced, from experience, that the man who leads a regular and sober life, is more likely to live long and healthy than a young man who leads an irregular and intemperate life, however strong his constitution may be.

23. I have heard some sensual, inconsiderate persons affirm, that a long life is no blessing, and that, when a man has passed his seventieth year, he is better dead than alive.

24. This, however, I know to be an error; for I am now as well as ever I was in my life, (and perhaps better;) I even now relish every enjoyment of life better than when I was young. I sleep every night soundly and quietly, and all my dreams are pleasant and agreeable.

25. I am likewise now sure that even persons of a bad constitution may, by leading a sober and regular life, live to as great an age as I have done; for I solemnly declare that my brain is as much itself now as ever it was.

26. Some perhaps will say that, without leading a regular life, there have been some that have lived to one hundred years or more, and therefore think that they may be equally fortunate; but I must tell such persons that not one in ten thousand ever attains that happiness; and those who do, generally contract some disease which carries them off.

27. Therefore the surest way is to embrace sobriety.

28. What I call a regular and sober life is, not to eat and drink such things as disagree with the stomach, nor to eat or drink more than the stomach can easily digest.

29. There are, I know, some old epicures who insist that it is requisite they should eat and drink a great deal, in order to keep up their natural heat and strength; and that were they to lead a temperate life, it would be but a short one: but I know that large quantities of food cannot be digested, especially by old and feeble stomachs.

30. Old people should eat often, and in small portions.

31. Others will say that a sober life may indeed keep a man in health, but cannot prolong life.

32. This I know likewise to be false, for I am myself a living instance of it; had I not followed the advice of my friend Dr. Jebb, but continued in my former way of living, I am sure I should have been in the grave years ago.

33. Oh! what a difference have I found between a regular and an irregular life; one gives health and longevity, the other disease and untimely death.

34. And it surely must be a great pleasure to a sober man to reflect, that the way he lives will keep him in good health, and be productive of no disease or impurity.

35. It is impossible, in the common nature of things, that he who lives a regular and sober life should breed any sickness, or die an untimely death, before the time at which it is impossible he should live; but sooner he cannot die, as a sober life removes all the usual causes of sickness, and sickness cannot happen without a cause.

36. Health and sickness, life and death, certainly depend on the bad qualities of the humours. Temperance corrects and renders them perfect, having the natural power of uniting and binding them together, so

as to render them inseparable and incapable of alteration or fermentation—circumstances which engender cruel fever, and end in death.

37. For myself, I am even now, at the age of one hundred and seven, hearty and happy, eating with a good appetite and sleeping soundly.

38. My senses are likewise as good as ever they were, my understanding as clear and bright as ever, my judgment is sound, my memory tenacious, my spirits good, and my voice (the first thing that generally fails us) strong and sonorous; and certainly these are true and sure signs that my humours are good, and cannot waste but with time.

39. I likewise enjoy the satisfaction of conversing with men of bright parts and superior understanding, from whom, even at this advanced period, I learn something.

40. What a pleasure and comfort it is that, at my time of life, I should be able, without the least fatigue, to study the most important subjects; nor is it possible that any one should grow tired of such delightful enjoyments, which every one else might enjoy by only leading the life I have led.

41. So that, to finish my discourse, I say, since length of days abounds with so many blessings, and I happen to be one who has arrived at that state, it is, I conceive, my bounden duty to give testimony in favour of it, and solemnly assure all mankind that I really (even at this time of life) enjoy more happiness than I can describe; and that what I have here stated is solely to demonstrate the great advantages derived from longevity, that others may be induced to observe the delightful rules of temperance and sobriety.

42. A sober man relishes every enjoyment of life; drunkenness expels reason, drowns the memory, defaces beauty, diminishes strength, inflames the blood, causes internal, external, and incurable wounds, makes a strong man weak and a wise man a fool; he drinks to the health of others, and robs himself of his own.

43. Now, taking my leave, I say, may others' years be as long and as happy as mine, and may they live in virtue and good-will toward all.

CHAPTER XXVII.

BILL OF FARE AND RULES FOR INVALIDS AND OTHERS.

Articles Prohibited.

Warm Meats of all kinds.
Soup, Gravy, Spices.
Coffee and Green Tea.
Salt Fish, Lobsters, Crabs.
Fresh Bread and Pastry.
Mince Pie and Cake.
Ardent Spirits and Malt Liqours.
Unripe Fruits, Pickles, and Nuts.
Tobacco in every form.
All other indigestible kinds of food.

Diet Recommended.

Bread made of Wheat, ground coarse, and unbolted; Indian, Rye, good Butter, Potatoes, Rice, and Stewed Fruit.

Plain Puddings and Custard, Milk and Molasses, when they agree, Cocoa Shell made the same as Coffee, weak Black Tea, Oysters; fresh and salt water Fish, and salt Codfish; Eggs cooked rare, Onions thoroughly boiled.

Remarks.

I have mentioned the kind of diet which should be rejected, and which, as a general rule, should be taken;

but there may be some exceptions, inasmuch as what may agree with one will not with another. In such cases it must be left to the choice of the patient, bearing in mind that whatever digests well or rests easy on the stomach, may be safely taken; but it should never be overloaded even with light food. No late suppers; and early rising.

As much depends upon the quantity as the quality of the food. "As great an amount of guilt is attached to the man who gluts or poisons himself to death, as to one who cuts his throat or hangs himself." Rise with an appetite.

"Let supper little be, and light,
But none makes the best night."

Again:

After breakfast walk a while,
After dinner sit a while,
After supper walk a mile.

Masticate or chew the food well. Eat slow. Drink no hot liquids. Meals should be taken at regular intervals, and as near as possible at six hours apart, and nothing between them, and none just before going to bed.

Abstinence should be preferred to medicine. It is beneficial to omit a meal occasionally, particularly if a little unwell. No naps should be taken after dinner. Sleeping apartments should be well ventilated; but no current of air should come directly upon the bed. All bed-clothes to be well aired. No corsets or tight clothes to be worn. Flannel should be taken off on going to bed, and it is best to wear it over the shirt. It is much better to wear muslin than linen; it preserves a more uniform temperature. Take a shower bath daily, or at farthest weekly; after which rub the whole surface briskly with a coarse towel, and particularly any part which is weak. Bathe the throat, neck, head, and breast, for sore throat, earache, weak lungs, eyes, and nervous affections. Ablution or bathing the body is a good substitute for the shower bath; if the skin is very foul, add a little ley to the water. Exercise in the open air is very necessary. Walking, riding, digging, ploughing, and the spinning-wheel are all very good. Feather beds are very injurious, especially in the summer season; straw or hair mattresses should be substituted. Avoid over-exertion and fatigue as much as indolence. Avoid a stream of air, while in a state of perspiration, as you would an arrow. Avoid *fretting* and *scolding* and corroding care. Avoid the crowded party, ball-room, and theatre.

Says Hassar Imma, an Arabian "Start from your couch betimes The moments of the morning are sacred and salubrious: then the genii of health descend and communicate with those who visit the herbage of the field while rich with the dews of heaven. How pure and sweet the smell of the air in this unpolluted state, before it is contaminated by corporeal effluvia! The fragrance of the groves will regale your senses, and the melody of birds allure your hearts to gratitude and praise.

Your regimen ought to be simple and inartificial. Drink only the simple water: it is the beverage of nature, and not by any means, nor in any way, to be improved by art. No spirits whatever are half so salutary. It is stronger than the strongest wine, purer than the virgin honey, and sweeter than the sweetest nectar.

Cleanliness is one of our greatest concerns. All animals are subject to its laws. The means of it are always at hand: the limpid stream and the briny wave were for this purpose ordained and given to the inhabitants of the earth. They purify the surface, and they brace and strengthen at the same time all the nerves and fibres of the human frame. In this manner have the destinies proscribed nastiness. It is the source of innumerable diseases. It is loathsome and

detestable; and the man or the woman who is averse to bathe or to wash, ought not to live.

Forget not to mingle moderation and abstinence even with the holiest rites of wedlock. A proper and habitual restraint in conjugal pleasure is like incense to the flames of the altar. So far from quenching, it cherishes and improves the heavenly fire. Healthy, happy, vigorous, and beautiful are the offspring of chaste and rational love."

Study to acquire a composure of mind and body. Avoid agitation or hurry of one or the other, especially just before and after meals, and while the process of digestion is going on. To this end, govern your temper—endeavour to look at the bright side of things—keep down as much as possible the unruly passions—discard envy, hatred, and malice, and lay your head upon your pillow in charity with all mankind. Let not your wants outrun your means. Whatever difficulties you have to encounter, be not perplexed, but only think what is right to do in the sight of Him who seeth all things, and bear the result without repining.

"If I were asked," says a writer "on what conditions more than others health and purity depend, I should reply, *active exercise, attractive industry, and healthful employment for body and mind.*"

In a word, there must be universal temperance, regularity, and exercise, in order to secure health and long life. In all cases of tolerable health, and in those cases of milder disease where exercise, drink, sleep, &c., can be so regulated as to bring about the restoration of health, medicine should be avoided.

It is only by obedience to these constitutional laws, fixed and immutable as the laws of the planetary world, which a wise and benevolent Creator has established in our nature, that life and health can be secured.

CHAPTER XXVIII.

REMARKABLE INSTANCES OF LONGEVITY.

Isabel Walker, a Scotchwoman, died at *one hundred and twelve*, without much severity of regimen; but she was distinguished by a *placidity of temper*, and possessed that happy medium state of habit, neither lean nor corpulent, favourable to long life.

Peter Garden, a Scotchman, died at the age of *one hundred and thirty-one:* his stature was tall, and his employment agriculture, which he continued to his death, with a wonderful appearance of freshness and youth.

John Taylor, a Scotch miner, lived to *one hundred and thirty-two:* his teeth continued sound to the last.

Gylloul Macrain, a native of the Island of Toura, in the Hebrides, died after keeping *one hundred Christmas masses.*

Catharine, Countess of Desmond, in Ireland, who died in the reign of James the First, was *one hundred and forty;* and thrice in the course of her life she renewed her teeth.

Brian Monagher, a native of Ireland, walked twenty miles to vote at a contested election in Queen's County, he being then *one hundred and fourteen* years old. The law required that forty-shilling freeholders should renew the registering of their qualification every *seven* years; and so little idea had this farmer of death, that, in giving a plumper to Sir Henry Parnell, he

intimated his intention of registering as a £50 freeholder the *next time*, which answers for life.

Thomas Parr, a native of Shropshire, was buried in the Abbey of Westminster at the age of *one hundred and fifty-two*.

Lawrence, a native of the Shetland Islands, married at the age of *one hundred*, and died at *one hundred and forty*.

Kentigern, or St. Mungo, Bishop of Glasgow, lived to the age of *one hundred and eighty-five*, as certified on his monument.

Henry Jenkins, of Northallerton, Yorkshire, lived to the age of *one hundred and sixty-nine*, being first a labourer, and afterward a fisherman.

Sarah Rouen, *one hundred and sixty-four*, and John Rouen, her husband, *one hundred and seventy-two*, were married one hundred and forty-seven years, both natives of the Directory of Carsoueber.

Petratsch Zorten, a native of Hungary, and a cow-herd, lived to *one hundred and eighty-five*.

The greater proportion of these persons were natives of Scotland ; though it is known that the most numerous instances of longevity are to be met with in Norway and Russia : out of 6229 persons in Norway, sixty-three had lived to a hundred ; and out of 726,273 in Russia, two hundred and sixteen attained one hundred years, two hundred and twenty above it, and four one hundred and thirty. In the list of longevity enumerated above all these persons were of a low situation of life, except the Countess of Desmond ; and the diet of all of them seems to have been moderate, and in some instances abstemious. Parr's maxims of health were, to keep your head cool by temperance, your feet warm by exercise ; to rise early and go soon to bed ; and if you are not inclined to get fat, to keep your eyes open and your mouth shut, or be moderate in your sleep and diet.

The diet of Jenkins is said to have been coarse and sour ; and in the north of England, distinguished for long-lived people, it is much the same, consisting of salted meat and sour leavened bread.

Zorten's diet consisted entirely of milk and cakes, with a glass of brandy ; and, being of the Greek church, he was to the last a strict observer of all their fasts.

The following instance of longevity is mentioned in the St. Petersburgh Gazette : There is living near Polosk, on the frontiers of Lithuania, a man named Demetrius Crabowski, who is *one hundred and sixty-eight* years old. He has always led the humble but tranquil life of a shepherd, assisted by his two sons, the eldest of whom is *one hundred and twenty*, and the youngest *ninety-seven* years old.

This man has lately died, aged 188. He had seen seven monarchs on the throne of Russia, and served Gustavus Adolphus as a soldier during the 30 years war. At 93 he married his third wife, who lived 50 years with him and bore him several children.

A person named Francisco died, at the head of Lake Champlain, aged 138. He was at the coronation of Queen Anne ; was in several battles under the Duke of Marlborough ; served in the British army during the French war in America ; served as a soldier in the American revolution ; was desirous to serve in the last war, but was considered too old. His diet was very simple, seldom eat flesh, generally supped on milk. At the age of 90 he was active and cheerful, and able to perform light labour.

Thomas Carn died at the age of 207 years ; of this individual the following account is given in Taylor's Annals of Health and Long Life :

The most remarkable instance of longevity which we meet with in British

history, is that of Thomas Carn, who, according to the parish register of St. Leonard Shoreditch, died on the 26th of January, 1588, at the astonishing age of 207 years. He was born in the reign of Richard the Second, anno. 1381, and lived in the reigns of twelve kings and queens, namely, Richard II., Henry IV., V., and VI., Edward IV. and V., Richard III., Henry VII and VIII., Edward VI., Mary and Elizabeth. The veracity of this statement may be readily ascertained by any person who may choose to consult the above register.

Jonathan Foster, at the close of the war, retired to Mason, N. H., where he lived in a shanty in the woods, far from trouble and care, and upon the plainest and simplest food, with water only for his drink. He died at the age of 103.

Old Dr. Holyoke died a few years since in one of the New England states, aged over 100. He lived very frugal and temperate.

Sergeant Andrew Wallace, of Pennsylvania, died a few years since, aged 105. He lived strictly temperate, drank almost exclusively water, food plain and simple. He had his sixth wife, and was the father of 34 children. While attending a cannon on the 4th of July, he was struck down by lightning, and lay in an insensible state for 17 days, without any signs of life, except a little warmth at the pit of the stomach.

This should be a caution against premature interments. William Tennant, a Presbyterian minister, lay three days in a trance, and it was very difficult for his physician to prevent his friends from burying him.

The following is an epitaph on Margaret Scott's tomb-stone, in Scotland:

Stop, passenger, until my life you read,
The living may get knowledge from the dead!
Five times five years I lived a virgin's life;
Ten times five years I was a virtuous wife;
Ten times five years I lived a widow chaste:
Now, wearied of this mortal life, I rest.
Between my cradle and my grave have been
Eight mighty kings of Scotland, and a queen.
Four times five years the commonwealth I saw,
Ten times the subjects rose against the law;
Twice did I see old Prelacy pulled down,
And twice the cloak was humbled by the gown.
An end of Stuart's race I saw—nay, more,
My native country sold for English ore.
Such desolations in my time have been,
I have an end of all perfection seen.

COMPARATIVE STATEMENT OF LONGEVITY.

To these facts we may add, in comparing the different classes of society with respect to longevity, that the profession of the gardener is the most healthy: next to it husbandmen are also healthy; but, from their great exertions and exposure to every weather, they are soon worn out, and generally old men before fifty. Manufacturers are neither healthy nor long-lived. Miners, who are much below ground, are generally healthy, and often long-lived. Soldiers, unless cut off by the casualties war, are long-lived, as well as sailors, who are generally healthy. Persons engaged in commerce, if not too speculative, and their minds racked with anxiety, are generally long-lived. The *voluptuous*, both in town and country, are commonly cut off in their *prime*, from their constant excesses. The learned professions, at the farthest, seldom exceed the age of eighty. In addition to these truths it may be ob-

served, in respect to the sexes, that women are generally longer lived than men; and mothers than single women.

On this solid foundation, then, illustrated in the preceding columns, is the *Code of Longevity* built, which no speculative reasoning can overturn, and which every practical fact tends to confirm and enforce. The means of carrying it into effect are simple and clear, neither wrapped in mystery nor needing disguise to recommend them.

CHAPTER XXIX.

TESTIMONIALS IN FAVOUR OF THE DIETETIC SYSTEM.

In concluding this treatise on hygiene, or the art of preserving health, I will add but a few cases of the beneficial effects resulting from obedience tc her salutary laws; hundreds of others might be added were it necessary

The following were written for the Esculapian Tablets:

Sir: Myself and wife have been living pretty strictly on your system nearly a year. For some time previous to my adopting your plan of living, my health was a good deal impaired, and I was afflicted with many bodily pains; and particularly troubled with impaired sight—so that I could not see to read at all by candlelight. A thick blur seemed to come before my eyes and obscure everything. Now all my bodily pains are gone and my sight is perfectly restored, so that I can read all the evening without the least inconvenience.

My wife's health is also much improved by her new mode of living. Through the whole cholera season last summer our diet was almost exclusively Graham bread and water; and we enjoyed excellent health, and had not the slightest touch nor symptom of that terrible disease.

Yours respectfully and with gratitude,

Nicholas Van Heyniger.

March 21, 1833.

Sir: Myself, wife, and four children have lived strictly on your system more than a year, without eating any flesh at all. We have all enjoyed improved and uninterrupted health during the whole time. I am a carman, and do a great deal of hard work, and my general health and vigour and strength have decidedly improved since I have followed your system; although I enjoyed ordinary health before, I can perform more hard labour now, and feel less fatigue at night than formerly. My children are all remarkably hearty and rugged and happy. Our fifth child has been born since we lived on your system. He is now about nine months old, and has not been unwell an hour since his birth, and has scarcely had one minute's restlessness. My wife enjoys the best of health and spirits. We were in the very midst of the cholera last summer. Our neighbours died all around us, in front of us, in the rear of us, and on each side of us. I was much exposed by carrying the beds and furniture out of houses where people had died with cholera yet neither myself nor one of my family had the least symptom of the disease.

Yours very gratefully, John Torry

New York, June 16, 1833.

DEAR SIR: For the last ten years I have been subject to a severe sickness every spring and fall.

Twelve months ago I heard your lectures at Clinton Hall, and was induced to adopt your system of living; since which I have enjoyed perfect and uninterrupted health. I would not exchange my present mode of living upon any consideration.

Yours respectfully, DAVID WOOD.

New York, March 22, 1833.

SIR: Myself and family, having heard your lectures and adopted your system of living, continued strictly on the system through the cholera season last summer; and during the whole season we were all entirely free from any symptom of that disease, and were without any indisposition whatever.

Yours truly, with cordial respect and esteem,

WM. H. PILLOW

New York, March 18, 1833.

DEAR SIR: I have attended your lectures from the first in this city, and do not know how to express my gratitude to you for the benefits I have received from your instructions. You have cured me of a very distressing sickness—that of nervous headache. I have left off coffee and tea, of which I used to drink great quantities, and live strictly on the diet system. You, sir, are an honour to your name and country. I am very desirous of making your acquaintance, and would be happy to call on you, or have you call on me.

Respectfully yours, S. WESERE.

New York, June 2, 1833.

SIR: I enjoyed good health till I was married, which took place in my eighteenth year. Soon after this my health began to fail, and continued to decline for a considerable time. I became very weak, and subject to turns of fainting, and frequently fainted away while engaged in my domestic concerns, and sometimes two or three times a day. My head ached incessantly, and often with great violence. I was also afflicted with what my physicians called the liver complaint, and was under treatment for it three several times, and each time salivated with mercury. I had a continual pain in my side, and extreme weakness and great susceptibility of the lungs. I laboured under a general debility, and at length became so feeble that I could hardly get about my house.

I used to have a doctor as often, on an average, as once a fortnight or three weeks, and took a great deal of medicine, but without anything more than a momentary relief, while my complaints, on the whole, were no better. So I continued on for about eight years, suffering almost everything that could make life miserable in mind and body. Indeed my body seemed full of disease and pain, and I was sometimes brought very low—so that I did not expect to live much longer; while at the same time my mind was excessively melancholy and full of despondency and wretchedness.

I immediately abandoned my tea and coffee, the latter of which I had been very fond of, and gradually got into a course of diet system strictly. Some weeks elapsed before I could perceive that I was in any degree benefited. After that I began to improve, and grew better very fast. My headache, pain in my side, and all other pains soon left me entirely, and in a short time I was restored to good health. Through the cholera season I ate fruit freely,

but took care to get good fruit, and enjoyed excellent health during the sickness, without having a single premonitory symptom of cholera or an unwell hour; nor have I had an hour's indisposition since: at present I enjoy the most perfect health.

Before I adopted the system I was so feeble that I was unable to do any work at all; but now I can work about my house all day, and take a long walk in the evening for pleasure, without feeling fatigued. I have taken nc medicine, and had no occasion for any since I fully adopted your system. My spirits are now uniformly cheerful and buoyant, and I am full of health and enjoyment.

With sincere and lively sentiments of gratitude, I am very respectfully yours, in the very best of health, and wishing you always the same,

New York, June 17, 1833. SARAH VAN YORX.

SIR: At about the age of twenty-one I became afflicted with the bleeding piles, for which I tried every remedy that I could hear or think of for such a complaint, but all without any lasting benefit. I became worse continually, often bleeding excessively, and becoming much reduced; and sometimes I was so afflicted that I was confined to my room and unable to walk for the space of three months. I was obliged to take cathartic medicine once a week regularly, and in this suffering manner I lived on for six years; the last two of which my complaint was extremely severe.

In June, 1832, I adopted the vegetable system of living, and in a short time was entirely relieved by it from my complaint; since then I have not had to take a single dose of medicine, and have been perfectly free from all disease and illness, and have been blessed with excellent health and spirits, and am truly thankful that I can say that I am now every way perfectly well. Yours with much gratitude and respect,

New York, June 17, 1833. CORNELIA BURR.

TESTIMONY OF A WIFE AND MOTHER.

"My health appeared to be as good in youth as that of most children, though medicine was frequently administered to me for indisposition. At about the age of thirteen my health become more delicate than ever before, and with declining health came an increase of "dosing and drugging;" and from that age to that of 41, I think not one month has passed without taking some kind of medicine. During that period I was constantly feeble and sickly, and could seldom say I was free from pain. Different physicians prescribed various remedies, but, in spite of all this dosing and drugging, I was ever complaining. I was very nervous, troubled much by dyspepsy, and greatly distressed by the food I ate. Such was my situation when, two years ago last September, I abandoned the use of flesh meat, and butter, and tea and coffee, though very partial to the former, thinking my constitution required it, and, consequently, that I could not dispense with its use. Either tea or coffee was my usual drink at meals, of which I used great quantities, especially of tea, which was not unfrequently prepared three times a day. My food for the last two years has been of a plain, simple, and unstimulating kind, though I have not at all times and in all respects followed strictly such dietetic habits as I am convinced would be for my benefit. The effect of these changes upon my health and enjoyment are very striking. I now perform more labour, and that too with less fatigue, than I have been able to before; nor have I ever, within my remembrance, felt so well as I have

during the last year. I indeed feel like a new individual, and never suffer from my old complaints of twenty years' standing, except when I transgress the rules of plain living, or labour uncommonly hard. At such times a pain in the side tells me of a violation of the laws of life, and warns me to shun them in future. My experience for the last two years in pursuing this manner of living, and my renewed health and strength, has firmly convinced me that the simpler, plainer, and more natural the food of man, the better it is adapted to his moral, mental, and physical constitution."

I had selected a number of similar cases, but I am obliged to omit them for want of room. Each one must practice the preceding rules, and then he can test their efficacy by personal experience, which is better than the testimony of others.

CHAPTER XXX.

I SHALL conclude the different chapters on Health and Longevity, by introducing a few anecdotes :

A very aged man was called into court as an evidence. The judge, being struck with the advanced age of the witness, asked him how he had lived to be such an old man ; he replied in the following language :

" Wine and women I always refused :
Late hours I never used.
I kept my head and feet from cold,
And that is the reason I am so old."

BOERHAAVE.

This celebrated physician and scholar ordered in his will that all his books and manuscripts should be burnt, one large volume with silver clasps excepted. The physical people flocked to Leyden, entreating his executors to destroy his will. The effects were sold. A German count, convinced that the great gilt book contained the whole arcanum of physic, bought it for ten thousand guilders. It was all blank but the first page, on which was written, " Keep the HEAD cool, the FEET warm, and the BODY open, and then bid defiance to the physician."

THREE GREAT PHYSICIANS.

The bed-side of the celebrated Desmoulins, a few hours before he breathed his last, was surrounded by the most eminent physicians of Paris, who affected to think that his death would be an irreparable loss to the profession. " Gentlemen," said Desmoulins, " you are in error ; I shall leave behind me three distinguished physicians." Being pressed to name them, as each expected to be included in the trio, he answered, " *Water*, *Exercise*, and *Diet*."

The secret let out.—A friend of mine, Wait Munson, during his residence in Ohio, asked the physician in his place what he did, when he or his family became sick. He replied, " *We abstain only.*" And why do you not recommend the same to your patients ? " *O*," said he, " *in that case I should lose them all.*"

PART SECOND.

GENERAL PRINCIPLES OF THE REFORMED PRACTICE OF MEDICINE, AND INDICATIONS OF CURE.

There must be first principles in medicine as well as in philosophy, which, though simple, are invariable and incontestible, and which, like the stars of the firmament in guiding the mariner, will conduct the physician with assured aim through the different stages of disease.

CHAPTER I.

MERCURY AND OTHER MINERALS.

SECTION I.

In treating on this subject, in order to add more weight to my own sentiments, I have availed myself of the opinions and experience of the most celebrated physicians, particularly James Hamilton, M.D., Fellow of the Royal College of Physicians and Surgeons, and Professor of Midwifery in the University of Edinburgh; and the men referred to have ranked among the highest in the medical profession.

"Among the numerous poisons," says Dr. James Hamilton, "which have been used for the cure or alleviation of diseases, there are few which possess more active and, of course, more dangerous powers than *mercury*. Even the simplest and mildest forms of that mineral exert a most extensive influence over the human frame, and many of its chemical preparations are so deleterious, that in the smallest doses they speedily destroy life."

Practitioners of the first respectability prescribe, on every trifling occasion, calomel or the blue pill. Thus, calomel is now almost the universal opening medicine recommended for infants and children, and a course of the blue pill (which is one of the mildest preparations of mercury) is advised, without any discrimination, for the cure of trifling irregularities of digestion in grown persons.

Dr. Falconar, of Bath, has, in strong language, reprobated this practice, and has pointed out many of the dangerous effects of the indiscriminate use of mercury. His warning voice, however, has not been listened to; for the employment of mercurial medicines has, for several years, become more and more extensive

When the effects of mercury upon the human body are accurately investigated and duly considered, it cannot fail to appear, that infinite injury must accrue from its use.

It is the object of the author to illustrate, in the following pages, these propositions; and, in doing so, he readily avails himself of the recorded facts and observations of distinguished members of the profession.

In detailing the changes produced upon the system by preparations of mercury, it is necessary to premise the well-known fact, that there are some individuals on whom such medicines, though continued for a considerable length of time, have little or no perceptible influence, unless the activity of their form or the magnitude of their dose be calculated to excite immediate effects. For example, whatever the constitution of the person may be, a very few grains of the muriate of mercury, given in substance, prove rapidly fatal, and large doses of the submuriate are quickly followed by vomiting and purging. On the other hand, instances of constitutions which are unsusceptible of the influence of the ordinary doses and preparations of mercury, are very few in comparison with those which are affected by the smallest quantity of that mineral.

Preparations of mercury, exhibited either internally or externally for any length of time, increase in general the action of the heart and arteries, and produce salivation, followed by emaciation and debility, with an extremely irritable state of the whole system.

These effects of mercury are expressly mentioned, or virtually admitted, by every author, ancient and modern, who has directed its use ; and it must appear very extraordinary, that their full influence should have been misunderstood, or at least not sufficiently regarded.

Blood drawn from the arm of the most delicate and debilitated individual, subjected to a course of mercurial medicines, exhibits the same buffy crust with blood drawn from a person labouring under pleurisy, and the secretions from the skin or from the kidneys are greatly increased. From the time that the influence of mercury becomes evident, the general strength declines rapidly.

It appears, therefore, that the increased action of the heart and arteries, excited by mercurial medicines, produces not only the same injurious changes upon the body with those arising from inflammation, but also certain effects peculiar to itself. This important fact has been incidentally noticed by numerous authors, although the natural inference to be deduced from it has been very much overlooked. Dr. Carmichael expressly says, " mercury induces a specific fever, different from all others, and attended with an increase of the various secretions."

The health is rapidly undermined ; and if there be ulcerations in any part of the body, they must as certainly degenerate into malignant sores, as blistered surfaces or scarifications mortify in cases where the living powers are much exhausted.

Experience has proved the reality of such conclusions, but prejudice and inaccurate observation led many practitioners of deserved reputation to attribute those effects of mercury to other causes, till Mr. Mathias published his valuable remarks on what he terms the mercurial disease. Thus, before Mr. Mathias's publication, the injurious effects of mercury in some syphilitic cases were attributed to the original virus operating on scrofulous, or cancerous, or scorbutic constitutions, or to some complication or anomaly which was inexplicable.

Mr. Mathias has unequivocally shown, that certain dangerous changes upon ulcerations originally syphilitic, and certain derangements of health, occur whenever mercury has been administered in too acrid a form or in too large a quantity ; and his remarks are confirmed by the experience of every practitioner who has, with extensive opportunities of observation, been attentive to the phenomena. He imagines that the action of the mercury in such cases is of a specific or peculiar nature ; it more probably, however, is merely in an inordinate or excessive degree, and in no other respect different from

what it is in every case. It is a well-known fact, that exposure to cold bodily fatigue, and irregularities of diet, particularly indulgence in intoxicating liquors, have aggravated the severity and malignancy of syphilitic ulcerations, whether primary or secondary. But as all those different causes concur only in one respect, viz., in exciting inflammation, it is evident that mercury, when it affects the system, must be productive of equally injurious changes upon the ulcerations in question and upon the general health, because it probably induces a more violent degree of inflammation than exposure to cold or irregularities of diet.

Upon the same principle may be explained the fact noticed by all practical writers, that scrofulous sores, and scirrhous tumours, and cancerous affections, in certain stages of their progress, are much aggravated by preparations of mercury.

Dr. Blackall has shown that, from the same cause, thickening of various membranes, particularly the pericardium and pleura, has ensued; and it is more than probable that the aching pains which so often follow courses of mercury, are owing to partial adhesion, and thickening of the cellular membrane in contact with the fascia and extremities of the muscles. From Dr. Blackall's cases, too, there is reason to believe that the inflammatory diathesis induced by mercury may continue for a considerable time after the mercury has been laid aside, and without any manifest signs. When individuals in this state are subjected to accidental exposure to cold, or indulge in irregularity of living, a violent and anomalous indisposition takes place, which is apt to terminate fatally, or to occasion a broken state of health.

Secondly; Salivation, or an excessive and unusual flow of saliva, in general, follows the increased action of the heart and arteries, and is preceded by a certain metallic taste in the mouth, and is attended with a peculiar odour of the breath, different from what is ever perceived in any natural disease.

When an increase of any of the ordinary secretions takes place during the course of inflammatory affections, the local complaints may be relieved. But the excessive flow of saliva, in consequence of mercury, is accompanied with more or less local inflammation of all the parts within the mouth. In some cases, besides the ordinary ulceration of the gums and loosening and final separation of the teeth, the tongue, moveable palate, &c., swell and ulcerate to a frightful degree.

Thirdly; Emaciation so commonly follows a course of mercury, that several eminent physicians, about the beginning of last century, imagined that mercury had a natural tendency to destroy the fatty particles. The celebrated Van Swieten (§ 147) says, "All the pinguid humours are dissolved by the action of mercury, all the viscid are attenuated and discharged out of the body through various outlets, together with the virus adhering to them; therefore, when the patient's body is totally emaciated, &c."

This emaciation has generally been supposed to proceed, partly from the diminished appetite for food, and chiefly from the increased secretions and excretions; but as the observations of Dr. Blackall have proved that the serum of the blood passes off with the urine, it is more than probable that the excessive rapidity of the emaciation is occasioned by that circumstance.

Fourthly; Debility, with an irritable state of the whole system, accompanies the emaciation, and of course occurs in various degrees in different individuals. The late Mr. Benjamin Bell, whose practical knowledge was so pre-eminent, comprehends in one short paragraph an emphatic list of those effects of mercury. He remarks that, besides the usual symptoms of fever, "mer-

cury is apt to excite restlessness, anxiety, general debility, and a very distressful irritable state of the whole system.

The consequences of this effect upon the nerves are different upon different subjects. In some, temporary delirium takes place; in others, palsy or epilepsy supervene, and in many the memory and judgment are more or less permanently impaired. Instances, too, have occurred, where sudden death has supervened, apparently in consequence of a very trifling exertion or agitation. Mr. Pearson has well described such cases. He says, this state "is characterized by great depression of strength, a sense of anxiety about the precordia, irregular action of the heart, frequent sighing, trembling, partial or universal, a small, quick, and sometimes intermitting pulse, occasional vomiting, a pale contracted countenance, a sense of coldness; but the tongue is seldom furred, nor are the vital or natural functions much disordered."

It may be alleged that these are extreme cases, and it must be admitted that, in many instances, those very violent effects do not follow. Delicate individuals, however, particularly those who have been accustomed to a sedentary life, and, therefore, in an especial degree, females, generally experience, after a course of mercury, various modifications of disordered feelings, communicating the idea of imaginary diseases, which unfit them for the duties of life and render existence a burden.

Among the anomalous complaints arising from this cause may be enumerated impaired or capricious appetite for food, with all the ordinary symptoms of indigestion, particularly retchings in the morning, and flatulency; disturbed sleep, with frightful dreams; impaired or depraved vision; frequent aches and pains in different parts of the body; occasionally such sudden failure of strength, as if just dying, and at other times violent palpitations at the heart, accompanied with difficulty of breathing. Along with all these complaints there is such a wretchedness of look, with such a propensity to brood over their miserable feelings, that it is extremely difficult to persuade the relations or the attendants of the patient that there is no serious indisposition. Indeed medical practitioners, who are not accustomed to weigh with mature deliberation all the complications of symptoms, are generally deceived in such cases.

"I might cite all writers on the Materia Medica," says Dr. Falconar, in the paper alluded to, (page 110,) "for authorities that the long-continued and frequent use of mercury is not free from danger; that, among other ill effects, it tends to produce tremours and paralysis, and not unfrequently incurable mania. I have myself seen repeatedly, from this cause, a kind of approximation to these maladies, that imbittered life to such a degree, with a shocking depression of spirits, and other nervous agitations with which it was accompanied, as to make it more than commonly probable that many of the suicides which disgrace our country were occasioned by the intolerable feelings that result from such a state of the nervous system." To the truth of these remarks every unprejudiced physician who has been in extensive practice must bear testimony.

Such are the ordinary and well-known effects of mercury when given in sufficient quantity to act upon the human body; but in many cases other deviations from health ensue.

Of these the most common are, excessive diarrhœa, accompanied often with discharges of blood from the bowels. This is so apt to occur in some individuals, even though the mercury be administered by being rubbed upon the surface, that every writer upon "Lues Venerea" has mentioned this effect as one of the great obstacles to the cure of the disease.

The random experiments of speculative physicians upon patients labouring under scrofulous affections have proved that, in some cases, ulcerations of the soft parts, and caries of the bones, originally arising from ill-conditioned states of the system, are much accelerated in their progress by mercurial medicine. Of this many melancholy examples might be cited. A boy about eleven years old had a sore on one cheek, with an affection of the jaw, which were attributed to the mismanagement of a dentist in extracting a carious tooth. A physician was consulted, (after the patient had suffered for some months,) who immediately prescribed a regular and full course of mercury. In a short time ulcerations in the throat appeared, the nose sunk, and one of the eyes was nearly destroyed, while the general health became so seriously injured, that death followed in a few months. Can it be for a moment doubted, that all those morbid changes proceeded from the inflammatory action of the mercury?

Mental derangement, with eventual fatuity, has sometimes followed a course of mercury; and the probable reason why it does not do so more frequently is, that the irritable state of mind, which usually precedes actual derangement, commonly alarms the attendants, and leads to active precautionary measures.

Another consequence of the use of mercury is a very violent affection of the skin. This eruption is usually preceded by heat and itching of the skin, a frequent pulse, and a white tongue. Most commonly it begins on the inside of the thighs, or about the flextures of the arms; and Mr. Pearson asserts, that it generally attacks the anterior parts of the body before the posterior. The parts affected are first of a faint red colour, and gradually the shade becomes deeper. The eruption proceeds by slow degrees over the whole surface, accompanied with an evident tumefaction of the skin, with great tenderness and heat, and most troublesome itchings.

These minute vesicles contain at first a pellucid fluid, and are each surrounded by a circular redness. From the great itching they are soon and inevitably ruptured, and discharge a thin acrid fluid, which irritates and excoriates the surface, and aggravates greatly the patient's sufferings. In this way the disease proceeds from one part to another, till the whole person becomes affected.

When the vesicles are first ruptured, the fluid which exudes, though thin, stiffens the linen; but after a few days the discharge becomes thick, and emits a most offensive smell. As the different parts of the body are affected in succession, the exudation is thin in one part, and thick and adhesive in another. In a day or two the adhesive discharge ceases, the cuticle loosens, assuming first a pale brown colour, and then turning nearly black, when it separates in large flakes, leaving a faint redness on the exposed surface. Sometimes this disquamation is succeeded by a second or third, in the form of white scales, like farinaceous powder. In some cases the hair and even the nails have also separated along with the skin.

The duration of the disease varies from a fortnight to eight or ten weeks, or even longer. Dr. Alley has described three varieties, viz., by hydrargyria mitis, simplex febrilis, and maligna; and out of forty-three cases, which he witnessed within ten years, eight patients died.

These morbid effects of mercury do not seem to depend entirely upon the quantity or mode of preparation of that medicine which may be administered to the individual; for while it is an established fact, that the mildest preparations employed externally, if exhibited in too large doses, or continued for too great a length of time, are followed by some of the bad effects above

enumerated, it is also notorious that very small quantities of mercury have suddenly proved equally injurious. Thus, in a lady, who had had such small doses of the blue pill, combined with opium, for three nights successively, that the whole quantity amounted to no more than five grains of the mass, salivation began on the fifth day, and, notwithstanding every attention, the tongue and gums became swelled to an enormous degree, bleeding ulcers of the mouth and fauces took place, and such excessive irritability and debility followed, that for nearly a whole month her life was in the utmost jeopardy. Every practitioner must have met with similar cases.

Another common consequence of a very small dose of mercury is, an excessive bowel complaint. In many individuals a permanent irritability of the stomach and intestinal canal has followed the accidental exhibition of a few grains of calomel.

Various other anomalous affections have been known to succeed the use of mercury. Thus, Dr. Falconar mentions, that he once saw a dropsy of the breast produced by the use of a mercurial remedy for a redness in the face, which it effectually removed, but instantly produced a dropsy of the chest, terminating in death. Dr. Blackall has recorded similar cases.

Dr. Alley asserts that he had seen "that eruption appear over the entire body of a boy about seven years old, for whom but three grains of calomel had been prescribed ineffectually as a purgative."

Many other instances of violent effects from a small dose of mercury might be cited. Besides, the following seems to prove that mercury may remain inert for a considerable time in the habit, and afterward, by some inexplicable circumstance, may become active:

A lady, the mother of four children, in the twenty-eighth year of her age, had a bad miscarriage at the end of the fourth month. When the author was called, she was very much reduced from the loss of blood, and required the ordinary palliative remedies. Three days after the first visit she complained of a bad taste in her mouth, with soreness of her gums, and on the following day salivation took place. On inquiring into the circumstances of her previous history, it was learned that, four years before, she had had for a fortnight a course of the blue pill, which had only slightly touched the gums; and it was solemnly asserted, that she had never again taken any preparation of mercury, and had been, in general, in good health.

The salivation was, therefore, at first attributed to some accidental cause, but when it was found to be proceeding with great violence, the medicines which the lady had been taking for the palliation of the complaints produced by the abortion, were carefully analyzed, from a suspicion that some mercurial preparation might have been mixed with them; but it turned out that they contained no mercury. The most anxious and unremitting attention, and the careful exhibition of all the ordinary remedies which have been employed in similar cases, proved unavailing. The salivation, with the usual consequences of excessive emaciation, debility, and irritability, continued for above twelve months. Occasionally for a day or two it was checked, but alarming vomiting, with threatening sinking of the living powers, supervened.

It is universally acknowledged that, although the morbid effects of mercury may be induced very suddenly, and by very small quantities of the medicine in certain constitutions, there are no marks by which such peculiarities of habit can be distinguished, and there is no method of arresting their progress. Hence the great danger of using this destructive mineral.

SECTION II.

THE PERNICIOUS EFFECTS OF MERCURY IN VARIOUS DISEASES.

In slight cases of indigestion popular prejudices may perhaps have led practitioners to attribute the most usual symptoms of indigestion to a retention of bile, and to suppose that nothing else than calomel or the blue pill can afford them relief.

Hazardous as it always must be for any individual to oppose popular prejudice, it is incumbent on practitioners, in every instance of serious indisposition, to act according to their own deliberate judgment respecting the nature of the case, and not in compliance with the caprice of the patient. Physicians ought absolutely to refuse giving or sanctioning the use of mercury.

Those who are subject to occasional fits of dyspepsia, particularly those who have resided in hot climates, are accustomed to appeal to their own personal experience, as directly evincing the great utility of calomel in such complaints. But if those persons could attend impartially to the effects of that medicine, they would find that its immediate operation is severe, and that it is followed for some time by uncomfortable feelings, and by an unusual susceptibility of derangement of the stomach and bowels. Perhaps, indeed, these very effects of calomel furnish in the majority of cases an antidote to the poison, for they compel the sufferers to adopt restrictions in diet, and other necessary precautions, which the immediate relief that would ensue from the operation of safer medicines might make them suppose to be useless

Sometimes, it is true, a single dose of calomel seems to remove in a few hours the oppressive feelings produced by indigestion; and this happens from the sudden discharge of the acrid contents of the stomach and bowels. But a repetition of the same medicine, instead of being equally serviceable, generally aggravates the sufferings, inducing alarming fits of palpitation, or of faintings, or of such unaccountable feelings as lead to the dread of immediate death.

The author can truly affirm that, in several cases to which he has been called, where patients had been under a course of mercury for stomach complaints, the irritable feelings described were in a much more violent degree than he ever witnessed from the same medicine given in other diseases. Nor is it wonderful that this should happen, since it is well known that one of the most common disorders occasioned by the use of mercury is indigestion.

When symptoms resembling those of dyspepsia arise from organic disease of the stomach, or, through sympathy, from tubercles in the lungs, or altered texture of any other part than the liver, it may be questioned whether any beneficial effects were ever produced by mercury. In almost all the instances of this kind which have fallen under the author's notice, the original affection was hurried on.

The chemical preparations most generally in use as a purgative is calomel. "It has," as Mr. Carlisle has remarked, "a direct purgative power as a metalic salt; and it operates powerfully on the large intestines. It disorders the digestive powers of the stomach; and, in debilitated persons, the frequent employment of it sinks the strength, and provokes hæmorrhoids."

It may be alleged that, in every complaint of infancy and childhood, calomel, within these few years, has been had recourse to, not only by practi-

tioners, but by parents and nurses; a practice which must have long ago been exploded if its bad effects had been known.

Although a dose of calomel may seem merely to affect the stomach or bowels, it may, by its influence upon some latent disorder, such as tubercles in the lungs, or slight enlargements of the mesenteric or other internal glands, give activity to a disease, the source of which might otherwise have been removed by the natural powers of the constitution. The author has for several years been impressed with the conviction of this important truth.

That there are many individuals who have often, with impunity, taken calomel as a purgative, is not to be denied; but it is equally true that extremely irritability of the stomach and bowels, ulcerations of the mouth with caries of the teeth, dropsy, epilepsy, and various other modifications of disease, have followed the use of that preparation. In several cases the author has decidedly ascertained that ulcerations of the villous coat of the intestines in infants and young children have been induced by the frequent repetition of doses of that medicine.

Had these injurious effects of calomel upon delicate constitutions been hid from the rest of the profession, and known only to the author, some apology might be offered for the pertinacity with which that medicine is still prescribed; but so far is this from being true, *that it may be confidently asserted, that no medical man of competent knowledge and observation could administer calomel as a purgative, in a hundred instances, without being convinced of its injurious tendency.* Of this, innumerable proofs could be cited, but it is sufficient to appeal to the testimony of Professor Carlisle and of Dr. Blackall.

Mr. Carlisle has expressed himself very strongly on this subject. "That grave men should violently persist in large doses of calomel, and order these doses to be daily reiterated in chronic and debilitated cases, is passing strange. Men starting into the exercise of the medical profession, from a cloistered study of books, and from abstract speculations; men wholly unaware of the fallibility of medical evidence, and unversed in the doubtful effects of medicines, may be themselves deluded, and delude others for a time; but when experience has proved their errors, it would be magnanimous, and yet no more than just, to renounce both the opinion and the practice."

Dr. Blackall's remarks, being very specific, afford a still more satisfactory proof of the validity of the author's opinions. "It appears to me," he says, "that no accidents proper to the disease can account for all those fatal conversions to the head, which of late years have so frequently taken place in the fevers of children; and I have on some occasions been disposed to attribute them to excessive and repeated doses of calomel, which, either not moving the bowels, as was expected, have given evidence of being absorbed; or, on the other hand, have purged too violently, and been succeeded by diarrhœa without bile, and a prostration of strength, from which the little patient has never risen. Its less severe effects are sometimes of no slight importance; a slow and imperfect recovery, a languid feverish habit, and a disposition to scrofula.

It need not surprise us that, in children, this disposition, particularly if so excited, should often be formed on the part most liable to every impression and most actively developing itself—the brain; since even in adults mercury is inimical to the nervous system. Parents have something to regret, who are so perpetually giving calomel to their children, without any distinction or care, as a common domestic remedy. And it is difficult to conceive on what view of the subject even practitioners proceed, who indulge in its use with less scruple than ever, with less caution as to management, while they

are observing and lamenting the daily increasing ravages of hereditary scrofulous disorders."

Small doses of calomel may seem useful in bowel complaints, when, in reality, the amendment is to be attributed to the regulation of diet, and to the opiates which are commonly recommended at the same time. This is the case in all diseases.

The author can confidently declare, that he has seen a number of infants and very young children destroyed, as he positively apprehends, by the indiscriminate use of calomel for complaints of the bowels.

In dropsies there is either increased activity of the exhalents, or some altered condition of the circulating mass, which renders it acrimonious or stimulating when exhaled; it is perfectly obvious that all medicines capable of aggravating such causes ought to be most carefully avoided: and since it is clearly established, that preparations of mercury have a direct tendency, both to increase the action of the arterial system and to alter the constituent parts of the blood, they must be regarded as most especially inadmissible.

The author has never met, in consultation, with any practitioner of discernment and experience who has not admitted the fact, both that mercury and squills frequently fail to give relief in cases of general dropsy; and also, that in many instances their exhibition has been succeeded by a rapid and mortal aggravation of the symptoms. If any reliance can be placed on the validity of the observations in the preceding pages, the reasons for these failures may be easily comprehended.

Were any farther illustrations required, the author could state several distressing cases to which he has been called. The patients alluded to, while under a course of mercury and squills, had been unexpectedly seized with alarming breathlessness, or violent pain in the side, or sudden delirium, with a sharp pulse. But, although a rapid amendment had followed this change of treatment, the use of the mercury had been resumed whenever the alarm had fairly subsided and a hopeless recurrence of all the bad symptoms had ensued.

Although the consideration may be humiliating, it is too instructive to be passed over, that the very reasons urged by practitioners of deserved eminence for the employment of mercury in dropsy of the head, are not unfrequently in direct contradiction to their own explanation of the nature of the disease. A late writer on this subject, of high reputation, for example, attributes it to increased action of the arteries, with, at the same time, venous congestations within the cranium, and recommends mercury for the purpose of substituting a new action. But the most ample proofs, it is presumed, have been brought forward in the preceding pages, to show that mercury increases the arterial action, that it alters the nature of the circulating mass, and that it impairs the energy of the nervous system, and, therefore, its operation must tend directly to aggravate those alleged causes.

On this subject the author can express his sentiments with more than usual confidence, having, from his earliest years, had innumerable opportunities of attending to the effects of mercury in this disease. In no instance under his observation has that medicine ever proved successful: and he fully agrees with Dr. Blackall in opinion, that on many occasions the injudicious use of that mineral has actually occasioned the disease. To his certain knowledge, affections of the stomach and bowels have been converted into dropsy of the head, by the use of mercury prescribed on the presumption that the patient already laboured under that disease.

Upon what principle mercury has been so universally employed in all cases

of enlarged ovarium, notwithstanding the variety of age, constitution, and state of general health of the individuals affected with it, no satisfactory explanation has hitherto been given.

Far less can experience be pleaded in justification of this practice; for the author speaks within bounds when he avers, that he has known mercury employed in some hundred cases of diseased ovarium, without its having proved useful in a single instance. A few apparent exceptions have been reported to him by old pupils; but, from the uniform result of all the cases which have been under his own notice, he is induced to believe that in those alleged exceptions the disease had not been the enlargement of the ovary.

But while mercury can be of no utility whatever, it may, and certainly often has produced irreparable injury upon the general constitution. A most impartial attention to many of those cases has convinced the author that indurations, which might have remained for years without inconvenience to the patient, have been forced into morbid activity by a course of mercury.

In some parts calomel has been employed for many years as the chief remedy in croup. But frequently two children in the same family, treated according to this plan, have died within a few days of each other.

"About sixteen years ago," says a distinguished physician, "I was induced to give calomel a fair trial; and I can solemnly assert that, according to all that I have seen, no relief whatever has been afforded by that medicine, unless copious dark green coloured stools, like boiled spinnage, have been discharged, and that it requires large and repeated doses of the medicine to produce even that effect. For example, to a child of seven years old one hundred and thirty-three grains were given within sixty hours."

In reasoning upon this subject, it is extremely difficult to explain, in the first place, the safety with which a hundred and thirty-three grains of calomel could be given, within sixty hours, to a patient of seven years of age.

It has been shown that the action of mercury tends, by exciting inflammation and effusion, to produce thickening of various membranes, particularly of the pleura; and several instances of that kind are recorded, where the fact was proved by the appearances on dissection. This effect of mercury has been long remarked by the author.

Many practitioners imagine that mercury is a specific in the *venereal disease*. But this is not the case. Indeed it is very questionable whether it has any other than a deleterious effect in this disorder.

This remark is exemplified in the experiments lately made in England by the head surgeon to the army. It is stated that about two thousand patients were cured without mercury, simply by abstinence and rest, or rather by the natural efforts of the constitution; whereas no more were cured by mercury. Thus it is evident that that mineral exerts no influence in the removal of of syphilis, and that physicians impute to art, or rather to a dangerous medicine, what is due to nature.

When we reflect that in fevers mercury is given with little scruple, we are led to remark, that "within the last thirty years either a sudden revolution in the laws of the human machine had taken place, or that medical men had ceased to reason on the operations of medicine."

Every practitioner who has paid the least attention to the effect of mercury in fevers, must be convinced of its immediate and subsequent injurious effects. No farther proof need be adduced than is found in the preceding pages: it is shown that it produces an augmentation of feverish and inflammatory symptoms; that, from the time that the influence of mercury becomes evident, the general strength declines rapidly, a dangerous emaciation, debility,

with an irritable state of the whole system; also paralysis, epilepsy, loss of senses, and many other distressing and dangerous complaints.

Who, then, in the possession of his reason, would think of exhibiting mercury in fevers. But, strange as it may appear, it is universally administered, and constitutes the chief medicine in the materia medica. We hope, however, that those who see its pernicious and fatal effects portrayed in this work, will in future flee from it as from the face of the most poisonous serpent. It would require years to give an account of the number of deaths it has occasioned. It has the power of decomposing the bones and to cause rottenness and exfoliation.

Mercury appears to destroy the energy of the nervous system, producing weakness, tremours, palsies, fatuity, epilepsy, and mania, the most dreadful of all its bad consequences; and indeed no part of the body is exempt from its deleterious effects. The patient becomes hectical, has a small quick pulse, and there is often a tendency to a colliquation on the skin and bowels, and a wasting atrophy of the flesh; his countenance is pale and wan, his nights bad, his appetite impaired, his strength much reduced, and he complains of general irritability, with headache and flying pains in his bones, especially on the approach of bad weather, of rain, of frost, or of north-easterly winds.

Dr. Mathias states that the mercurial disease is rather greater than that awful scourge and curse, the *venereal disease*. I have seen, says he, the bones of the palate, the cartilages, and bones of the nose and palate all confounded in one diseased mass. I have also seen several cases of the mercurial disease in which the complaint first commenced in the nose, and, after having produced considerable destruction there, the ulcerative process has crept up on each side of the jaw-bones, through the cheeks in an irregular direction, till at last the miserable patients have found the remedy for their sufferings only in their deaths.

C. Bishop, of Massachusetts, both deaf and dumb, states that his deafness and that of his brother's was the effect of having calomel or mercury administered to them during their sickness with the typus fever.

Mercury a cause of Onanism and other diseases.—We are inclined to imagine that intemperance and abuse of mercury predisposes to onanism, as to many other diseases, by impairing the general constitutional powers.—*Porter on Onanism.*

SECTION III.

CALOMEL OR MERCURY. BY DR. ANTHONY HUNN, OF KENTUCKY.

This is the era of *calomel*. The present medical practice might well dispense with every other drug besides it. I own the calomel practice is both cheap and easy to the physician; for the whole extent of both theory and practice is, give *calomel*. If that will not help, give *more calomel;* and if that again proves abortive, double, treble the doses of *calomel*. If the patient recovers, "*calomel* has cured him:" if he dies, "nothing on earth could have saved him." The reader will conclude that medical schools and academies, with the headaching studies of anatomy, physiology, botany, pharmacology, chymistry, have been laid prostrate by this giant, *calomel*. Half a day's, nay, in a genius, half an hour's study will initiate any lady or gentleman into all the mysteries of the Æsculapian art, and the "*aurea praxis*" might swell the

account of a modern Galenus to one dollar at the expense of twelve and a half cents. This is certainly for the doctor a "consummation devoutly to be wished." But there is a heavy drawback on our joy, which the fable of the "boys and the frogs" so ingeniously portrays: "*what is joy to you is death to us*," said the expiring frogs. I expect to show to my impartial reader that the present calomel practice in fevers is a calamity in its ravages coextensive with the empire of civilization, and that war, with all its ghastly concomitants, must hail calomel its master.

The *proper* effects of mercury on the human frame are, first, *Fever*, as I have before defined it. Second; It is the cause of a peculiar action on the lymphatic vessels. Third; It chymically decomposes the fluids, and peculiarly the lymph. This is, in my opinion, the true cause of the fetid breath in salivation. Fourth; In constitutions prone to that effect, or under circumstances favouring it, or when too long used, it produces *mortifying ulcers* of a specific kind, which hitherto have proved absolutely incurable. Its accidental effects are, first, salivation, which may also be produced by other drugs, and sometimes appear spontaneously, and which is not at all necessary to effect a cure. Second; In a state of great visceral irritability, or when given in large doses, it proves a sickening and powerful purgative, with a singular sympathetic affection of the liver, which viscus is thereby thrown into a morbid convulsive action, creating bile, exorbitant in quantity and poisonous in quality; when, in a healthy state, the bilious secretion is mild, moderate in quantity, and salutary.

Now, it appears to be a law in animaliation that two distinct fever causes cannot operate at the same time on the system. Thus, for instance, if the infection of the measles lodge in the body, when a patient is inoculated for the small pox, the latter will lay inactive till the first has run through its course. This law, I apprehend, has first introduced mercury into the fever practice; and it is a fact, if the *proper* mercurial action can be produced, the fever produced by a miasma will speedily cease. But my reader will please to observe, first, that in all fever cases it is extremely precarious and difficult to produce this proper mercurial action, and there are many cases in which it cannot be induced at all. Besides that, when induced, it is unmanageable. Second; If the bowels are very irritable and weak, or in peculiar habits, it will operate as a purge and throw the liver into bile, creating convulsions, like a blister-plaster, on the very liver. It will attract more or less of the febrile impetus upon that vital organ, producing a dangerous inequality, which is called "bilious fever." Third; After a vast quantity of mercury has been introduced into the system, which, for want of sufficient excitability, has lain dormant; if now, by a sudden increase of that excitabilily, or from other unknown causes, it evinces its presence by salivation, this will be of course enormous and distressing. The teeth, valuable instruments of our most substantial enjoyments, become loose and rot, perhaps fall out: or, worse still, the upper and lower jaw-bones exfoliate and rot out sometimes, as I have witnessed in the form of horse shoes; parts of the tongue and palate are frequently lost, and the poor object of commiseration lingers out a doleful existence during life. A tremendous description this, indeed; yet this happens when mercury performs *a cure*. In our summer and fall fever the pestilential bilious symptoms occasioned or aggravated by it, carry the patient speedily off in inexpressible torments, and spread the multiplied miasma among the mourning family, the unwary bystanders and mourners!

Is there any of my readers who would not, by this time, pray "deliver us

from calomel?" Yes, my fellow-citizens, you can be, the world will be delivered from it! Only drive away prejudice, that black thunder-cloud which ever hovers over truth; think for yourselves, free as republicans ever should think; consult your precious healths and lives. Every free man should, at least to a certain degree, be his own lawyer, his own preacher, his own *physician*. My method of cure in fever is entirely without mercury and its doleful effects. Were I even not more successful than those gentlemen of the medical profession who trust so much to the virtues of calomel, still the gain would be immense; but, from facts enumerated fairly by myself and others, I have nothing to fear from an impartial comparison.

SECTION IV.

THE STATEMENT OF DR. RICHARD REESE, OF LONDON, MEMBER OF THE ROYAL COLLEGE OF SURGEONS, AUTHOR OF THE "DICTIONARY OF POPULAR MEDICINE," "CHEMICAL GUIDE," CORRESPONDING MEMBER OF THE SOCIETY OF PRACTICAL MEDICINE OF PARIS, ETC.

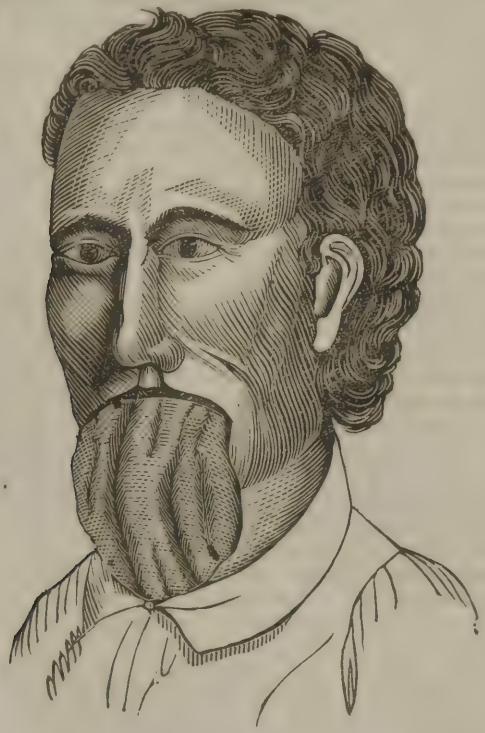
THE charter of the "Royal College of Physicians" is found to contain a singular license, which is, a permission to any one and every one to practise the healing art by the use of *herbs only*. Now, we really do consider this as ample a permission as any man would require; for poor must be the resources of that physician's mind, and very narrow his knowledge of medical botany, who could not, from the vegetable kingdom alone, cure most of the diseases of the human frame: even the specific of mercury, if we were driven to the necessity of a substitute, might probably be rivalled in some of these productions of nature. We know not whether we have most reason to hail the discovery of mercury as a blessing, or regard it as a curse, since the diseases it entails are as numerous as those which it cures. Our best informed dentists declare that they can clearly witness the progress of the use of mercury in the increasing diseases and decay of the teeth. There are serious objections also to other articles of the metallic world; antimony, iron, and arsenic are dangerous remedies in the hands of the ignorant, and mankind, perhaps, in the aggregate, would be benefited by their expulsion from medical practice.

SECTION V

PLATE SHOWING THE EFFECTS OF MERCURY OR CALOMEL UPON THE SYSTEM.

THE annexed figure represents the appearance and state of Mr. William W——, of this city, in consequence of submitting to the treatment pursued and recommended by physicians and authors of the day He had felt occasionally a little pain in his side, and requested a doctor to prescribe for it. He did so, and in a few days his tongue became enormously swelled and sore, and soon protruded out of his mouth, as appears in the figure. It separated and opened in four places, from which, as well as from his mouth, issued matter, blood, and water. The doctors, in consultation, concluded to operate upon his tongue, by making incisions in it. This, however, was objected

to : his jaws were also enormously swelled, and for ten days he ate nothing. One hundred and fifty-six leeches were applied to his tongue, and four quarts of blood were extracted from it.



His tongue was thus protruded for the space of two weeks or more, during which time he was obliged to make his wishes known by writing ; and his recovery was considered very doubtful. He, however, employed another class of physicians, who, by pursuing an opposite mode of practice, (vegetable instead of mineral,) soon counteracted the effects of the poison, by the application of poultices, &c. ; and the man is now well, and ready to attest to the truth of this statement. This is by no means an uncommon case. It occurs often, and even worse consequences sooner or later follow the use of mercury and other poisonous metals, now so generally prescribed for every complaint.

I am now attending a woman nearly destroyed by taking mercury for the prevailing influenza. Her whole system has been excessively diseased, almost unable to swallow ; her tongue, gums, throat, and jaws swollen and sore ; her breath so fetid that it was almost impossible to stay in her room ; flesh nearly wasted away ; countenance sunk, pale, and ghastly ; excessive debility ; water running from the mouth ; appetite gone ; and, from the putrid state of the fluids, every appearance of mortification and death. When the physician was first told of the mischief he had done, he made no apology for the treatment, but immediately began to converse upon another subject

The son of this woman again called his attention to his mother, but he was inexorable. Alas! he had followed the books of the day, and this was sufficient to excuse his conscience! This man was not one of the lowest grade of common physicians by which some of the faculty might excuse the matter, but a no less personage than one of the physicians of the New York Hospital.

Dr. Sweetser, in his work on consumption, states that calomel or mercury has been often ranked among the causes of consumption. That it may act as an exciting cause of the tubercles, hardly admits of a question. Mercury saps the constitution, creates the very diseases for which it is given to remove, and lays the foundation for infirmity, suffering, and premature decay. If mothers or doctors deal out calomel to children or others, we can only commend them to the mercy of heaven.

In the year 1810 a large quantity of quicksilver, taken from the wreck of a Spanish vessel, was put on board the English ship Triumph, and the boxes stowed in the bread-room. Many of the bladders containing it soon rotted, which diffused it through the ship, mixing with the bread and other provisions. The consequence was, that very many of the officers and crew experienced severe salivations and other deleterious effects from the mercury: two died from its influence; and nearly all the live stock, as well as cats, mice, and a dog, and even a canary bird, died. Three persons, predisposed to pulmonary disease, died of consumption; and it caused consumptive symptoms in others. It is known that those who are doomed to work in the quicksilver mines soon lose their health, linger a short time, and are soon destroyed by its poisonous effects on the system.

I was called, a few years ago, to visit a child in this city, to whom a physician had administered mercury; and another such a melancholy and horrid spectacle I never witnessed. Nearly all of one side of the face, eye, and neck were mortified, black, and destroyed by this mineral; and the wretched child was then dying from its effects. An attempt was afterward made by some to get the doctor indicted, but without effect, as the patient was killed according to *law* and *rule*. Suppose this mischief, or rather manslaughter, had been committed by a reformed practitioner, how soon would he have been arrested, tried, and punished. While *ignorance* continues, these evils will continue; but just as soon as the community are enlightened on the subject, down goes this poisonous system. What can change the tyrant of *custom* and *fashion*, or the religion of the Turks and Chinese? Nothing but intelligence and the light of Heaven.

The disastrous effects of this "incendiary" practice have left fearful monuments of its destructive character in every city, town, village, and hamlet; in every civilized country, where fashion and folly have been allowed to triumph over the dictates of common sense, and mercurial medicines permitted to assume the place of the more salutary productions of the life—preserving vegetable kingdom. So extensively, indeed, have mercurial medicines spread their ravages among mankind, that it has become an important part of the physician's study to learn to designate and remove the maladies which are caused by them.

Those who are engaged in working quicksilver mines, in New Spain, are almost always in a state of salivation; and, when condemned as criminals to such labour for life, drag out a miserable existence in extreme debility, and wasting with stiff, bent limbs, total loss of teeth and appetite, till death in a few years puts an end to their existence. What a deadly poison!

The late Dr. Hunn remarks: "Has any physician yet discovered the

modus operandi of calomel? No. Can anybody tell what calomel or mercury will do, when taken? No. Calomel acts quite *independently* of the physicians *wish* or *design*. At one time three grains will purge the patient nearly to death; at another time, in apparently the same situation, one hundred grains will produce no sensible effect."

"The wife of a distinguished clergyman of Boston," says Mattson, "informed me that she had known, in her visits to the sick, at least *one hundred cases* in which salivation had been produced by small doses of mercury, contrary to the wishes or expectation of the attending physician."

"A lady in Philadelphia was salivated by a small dose of colomel, and she suffered indescribable agonies; her tongue swelled enormously, and protruded from her mouth, so that she could not speak nor scarcely swallow: her joints swelled and were exceedingly painful. She lingered in this situation for several weeks, when death put an end to her sufferings."

Says Dr. McIntosh: "Some years ago Dr. Halliday, of the East India Company, was, by order of the Marquis of Hastings, put under arrest, and deprived of rank and pay, for showing, by most incontrovertible evidence, that in the general hospital of Calcutta the enormous quantity of *twenty-six pounds of calomel* was consumed by *eight hundred* and eighty-six patients; and that, under the operation of this mineral, the proportion of deaths was *one* in about *six* and three-quarters of the whole list; while under a more rational treatment the mortality was reduced about *one-half*. The mortality bore almost an exact ratio with the quantity of calomel used." The same writer observes: "The deaths in the West Indies, under the mercurial plan, were never exceeded, amounting to nearly *one-half* of the whole number of the troops."

Dr. Bigelow, of Boston, thus remarks: "I have known the tongue to be so much swelled, from the use of calomel, as to be pushed out of the mouth and to remain out for three or four weeks before it could be restored. Infants terribly salivated by it, an extensive sloughing of the mouth and the gums takes place. A child will be affected by its mother's milk, if she is under the influence of mercury.

Mercury enters into every part of the body—the blood, bones, milk, urine, bile, cutaneous discharges, serum, saliva, breasts, intestines, and there continues; and if the victim to such quackery lives, his system will be a living barometer, to denote the changes of the weather—great pain making the only difference.

SECTION VI.

MINERALS GENERALLY.

In concluding this chapter, I will merely hint at the dangerous effects of most of the other minerals used for medicine, which I extract from an article I wrote some time ago, in reply to an attack made upon our practice by a physician of this city.

Mercury.—The principal mineral now used internally to "heal all the ills to which our flesh is heir" is mercury. It is called the Samson of the materia medica, and so it appears to be; for if Samson slayed his thousands, this mineral poison has slayed its tens of thousands. It is a matter of profound astonishment to me that any article, productive of such deleterious

effects, should be so highly extolled by the faculty, and be so universally used. It seems that modern not reformed physicians are the genuine descendants of that celebrated empiric, Paracelsus, who first discovered and made use of it. For many centuries previous Galen taught and practised the vegetable system of medicine for which we now contend. Many authors of distinguished reputation have raised their warning voice against the use and abuse of mercury, while others equally celebrated have proved, by experiments on thousands, that it is a very dangerous article; yet it is still administered for nearly every complaint.

Muriate of Mercury.—Muriate of mercury, says a writer, is one of the most violent poisons with which we are acquainted.

Zinc.—Zinc is the next mineral extolled by the writer as a suitable article for medicine. The following definition my be given of it: Zinc is a metal which exerts a powerful and very dangerous effect upon the system, especially if an over dose is taken.

Antimony.—It is known that antimony, given by physicians to puke, is often applied to the skin, mixed with lard, to produce pustules or eruptions; and, after applying it a few days, they appear, and cause the most poisonous and painful ulcers. Now, it is obvious that the same mineral, when given internally, must act as a poison, by irritating the stomach and bowels: and is there not danger of its causing pustules in these organs, as well as on the surface? Again; antimony, being very soluble in water, is liable to be absorbed into the circulation and exert its destructive, irritating, and poisonous effect on every organ, causing a metallic state of the mouth, nausea, vomiting, hiccough, burning heat and pain in the stomach, colic, copious evacuations from the bowels, fainting, increased action of the heart and arteries, cold skin, difficult respiration, loss of sense, convulsive movements, cramps, and death itself. And, notwithstanding all these baneful effects, physicians are in the daily habit of administering this dangerous metal.

Antimony, says Hooper, is a medicine of the greatest power of any known substance; a quantity too minute to be sensible in the most delicate balance, is capable of producing violent effects, if taken dissolved or in a soluble state.

Arsenic or Ratsbane.—This is another mineral which physicians of the old school are in the habit of giving as a medicine, when it is known that a few grains are sufficient to destroy life. It is usually disguised and given in the form of Fowler's solution, which is very pleasant. It is also applied externally, in the form of powder or plaster, for the destruction of cancers; and in this way is sometimes absorbed, and proves serious. Given internally, it causes nausea, sinking, burning pain and heat near the heart and over the whole body; inflammation and eruptions on the face, lips, tongue, palate, and throat, vomiting, black and fetid stools; small pulse, palpitations, great thirst, fainting, coldness, cold sweats, difficult respiration, bloody urine, swelling and aching of the body, livid spots on the surface, great prostration, loss of sight, delirium, convulsions, and sometimes it proves fatal. It has been shown, by dissections, that the stomach and bowels have been inflamed and ulcerated, and partly destroyed. It is known that this mineral is given to destroy rats, and yet persons take it for medicine, because given by a physician.

It is stated by Hooper that arsenic is one of the most sudden and violent poisons we are acquainted with. When the quantity is so small as not to prove fatal, tremours, paralysis, and lingering hectics succeed. We are, on the combined testimony of many medical practitioners, conspicuous for their professional zeal and integrity, irresistibly induced to declare our opinion, at least against the internal use of this active and dangerous medicine

Iodine.—It is stated in Hooper's Medical Lexicon that, whenever iodine is administered, an over dose must be avoided, as it acts with extreme and dangerous effects on the constitution.

Metals generally.—The attention of the reader is particularly directed to the following testimony of the above-mentioned writer:

☞ "All the metallic preparations are uncertain, as it depends entirely on the state of the stomach whether they have no action at all, or operate with dangerous violence."

"Minerals," says the learned Dr. Cheyne, "are the most destructive to animal bodies that malice can invent, beyond gunpowder itself, and even spirituous liquors; for not only nature has provided none such, but as *poisons* in venomous creatures, to kill their enemies. They become *iron*, *bristles*, *nails*, and *lancets*, darting perpendicularly into the solids of the body, so as quickly to tear, rend, and destroy; and, therefore, can never be proper for food or physic. Whereas galenical, or vegetable, productions have none of these bad properties, and are, consequently, designed for both food and for the sick."

CHAPTER II.

BLOOD-LETTING.

If the employment of the Lancet was abolished altogether, it would perhaps save annually a greater number of lives than in any one year the sword has ever destroyed. DR. REID.

SECTION I.

Among the various means made use of to restore the sick to health, there is none so irrational and absurd as blood-letting. It is, at present, considered almost as a universal remedy, and resorted to for the cure of the slightest indisposition; and, although daily slaying its thousands, it still continues to be the main pillar of the profession. Indeed, were bleeding and mercury to be altogether prohibited, many physicians would find themselves in a sad dilemma; for their hands would be completely tied.

We are unable to determine precisely the commencement of this pernicious custom, but we find it to be very ancient; having been, it appears, cotemporary with the declension of the healing art in the earliest ages of the world. It was not, however, carried to such an extent, till after the discovery of the circulation of the blood by Harvey. It was at this period that the whole faculty began their mad career, in committing the most wanton violation of the laws of nature. Those who were so unfortunate as to fall victims to disease, were doomed to suffer the most extravagant effusion of blood, and the poor sufferers were soon hurried to an untimely grave, *secundum artem;* even the guillotine of France scarcely surpassed this *systematic murdering.* But in process of time practitioners began to witness the mischief they were committing, which in some measure damped their ardour in these bloody scenes. This check induced one physician to remark, that *the proportionate disuse of the lancet was one of the greatest improvements in modern medicine.* We find, however, that blood-letting has been practised for many centuries

almost with the same infatuation; and, lamentable for mankind, in the present day it is regarded as the most powerful weapon to subdue disease. There are few maladies in which it is not recommended. In pleurisy and all inflammatory complaints an astonishing quantity of blood is drawn from the system. It is very common to take from five to seven pounds in twenty-four hours. One of the professors in the medical college of this city stated that he had frequently bled his patients to the amount of two hundred ounces in three days. Another professor declared that he had taken three hundred ounces in a short space of time, and, for proof of this fact, appealed to one of his students. The effect of this practice I shall leave for people of common sense to determine. How much is it to be regretted that such an awful scourge of humanity should exist! A little examination into the consequences of blood-letting will prove that, so far from its being beneficial, it is productive of the most serious and fatal effects.

Nature has endowed the animal frame with the power of preparing, from proper aliment, a certain quantity of blood. This vital fluid, subservient to nutrition, is, by the amazing structure of the heart and bloodvessels, circulated through the different parts of the system. A certain natural balance between what is taken in and what passes off by the several outlets of the body is, in a state of health, regularly preserved. When this balance, so essential to life, is, contrary to the laws of the animal constitution, interrupted, either a deviation from a sound state is immediately perceived, or health from that moment is rendered precarious. Blood-letting tends artificially to destroy that natural balance in the constitution. Nature, deprived of a quantity of the circulating fluid, being fitted with means for repairing the loss she has sustained, begins immediately to repair it. The secretions and excretions in general are diminished; the appetite is increased; and, for a short time, the process of nutrition is unusually quick.

Thus, by the wisdom of Providence, nature soon restores to the constitution what art had taken from it.* The consequences, therefore, of having been once bled are rarely considerable. This single operation, however, is an imprudent violation of nature and of common sense.

But too often the practice has not rested here: for various are the incidents which favour the repetition of blood-letting. The patient, if addicted to an easy, indolent, luxurious way of life, may find himself, after the evacuation, sensible of some present ease. The system, being before too full of blood, or rather the balance being lost, enjoys a short respite from its usual oppression. Or, after the bleeding, though it was improper, and tended rather to increase the disease, yet the hope of relief, or a change of weather, the benefit of exercise and country air, or some other alteration in an accustomed manner of living, may, by palliating or removing the complaint, prejudice the patient in favour of the lancet. The disorder, it may be, was of such a kind as really to admit of alleviation from the use of bleeding; but, nevertheless the remedy unhappily proves of worse effect to the constitution than the disease itself would have done, though entirely left to nature. Great numbers of people who have been relieved by bleeding, are apt to be partial to the means of their own recovery, and to become strenuous advocates for its use, even in cases by no means similar to their own.

These, and a variety of other accidental causes, often persuade to repeti-

* It very frequently happens, however, that in many habits the loss of even small quantities of blood induces such a debility as to prevent a reaction of the system, whereby the blood becomes thin and watery, dropsical and other diseases follow, and very commonly death itself.

tions of blood-letting. The consequences now become more serious. The constitution, though it did not suffer materially from one bleeding, yet, far from being able to undergo with impunity repeated operations of a similar kind, turns against itself those powers which were given for its preservation, and co-operates with the imprudent use of the lancet in promoting the accomplishment of its own destruction. For now the constitution not only repairs the losses of blood it sustains, but, if the common intervals of time be interposed, makes more blood than is naturally required for the purposes of health and life, that it may be able to bear such repeated evacuations.

Thus the habit of blood-letting is established. But, in fact, habitual blood-letting augments the very evil it was intended to remove: for sanguine evacuations, necessitating the constitution to make more blood than is requisite, produces too great fulness of the system. The balance between what is taken into the body and what passes off by its several outlets, is no longer maintained. As the disposition to plethora exists, plethora itself, if the person continue to live in his accustomed manner, will undoubtedly prevail, except at that time when the constitution has just received the unnatural assistance of the lancet. The habit of letting blood increases and becomes stronger by repetition. In this state the constitution, in spite of human art, will at times labour under various degrees of plethora, till the vessels arrive at that point of fulness which again creates the necessity of bleeding. Though some constitutions are so robust, or so peculiarly framed by nature, as to bear such treatment without any evident bad consequences, yet this is but the privilege of few. Many will severely suffer, though they themselves may often be the first to extol in the highest terms of praise that very remedy which has proved so pernicious to their own constitutions. They have been bled till stated bleedings become necessary, not only for the support of health, but even for the preservation of their lives. They have injudiciously created to themselves the necessity of bleeding, and are even happy to find that it gives present relief in complaints, which, from the first, it tended to induce and afterward to confirm.

The effects of plethora are many and dangerous. A slight degree of it often produces strange commotions in weak and irritable habits. No person who depends for the preservation of his health on an artificial discharge of blood, can ever be pronounced out of danger. Before the usual means of relief be employed, the sanguine fulness at one time or another may have proceeded to a morbid, or even to a fatal length. The anticipation of the stated bleedings may, with the greatest inconvenience, lessen, but it can never remove, the danger. An increase of fatness, unnatural heat, torpor, inactivity, and a sense of lassitude are common effects of plethora. The whole vascular system is unnaturally put upon the stretch, and along with it the nervous and muscular fibres. Thus, by slow degrees, the tone of the body, in consequence of so considerable an over-distention, is in danger of being destroyed. The constitution itself, in proportion to its native vigour, is rendered liable, exclusive of every other cause of disease, to break many years sooner than it might otherwise have done in the common course of nature, if nature's laws had not been wantonly violated or presumptuously despised. Hence old age sets in at an earlier season, and becomes afflicted with heavier infirmities. Frequently the appetite fails, the powers of digestion and nutrition are impaired, the body shrinks, the mind becomes dejected, the stomach and bowels are disordered, sleep is interrupted and unrefreshing, and, in short, the whole constitution fundamentally shaken and debilitated.

These are the slow, but frequent, consequences of bleeding. Others

in fact occur, which, though on the whole they are perhaps less destructive are, however, more painful and better distinguished.

Too great a fulness of blood predisposes the constitution to a world of disorders. Inflammatory fever and external inflammation, the phrensy, the pleurisy, and the quinsy, rheumatism, hæmorrhage, &c., are frequently the disorders of a sanguine habit, depending greatly on the plethoric state. Physicians likewise are perfectly agreed, that too great a quantity of blood, increasing irritability, has a strong tendency to excite, in habits where the predisposition to such disorders exists, convulsions, St. Vitus' dance, epilepsy, and hysteric fits; complaints which otherwise might never have made their appearance. We may farther add, pains of the head, vertigo, night-mare, often the forerunners of apoplexy and palsy, which are justly ranked among the unhappy effects of plethora. Habitual blood-letting tends, indeed, particularly to bring on apoplectic and paralytic complaints. The morbid habit, acquiring strength by repetition, produces its fullest and most trying effects in advanced age, when venous plethora occurs, and when the veins of the head, in old people, are particularly subject to rupture and the consequent effusion of blood—far the most frequent and fatal cause of apoplexy.

Thus much, by way of example, to show the injurious effects of bleeding. It has been proved that habitual artificial discharges of blood, instead of diminishing, tend to produce plethora; the pernicious consequences of which, on the human constitution, have been briefly enumerated.

Some may object to this reasoning, that in many instances of habitual blood-letting the effects here mentioned have not followed; and that, where they have,other causes more powerful have principally produced them. We answer, that such argument is inconclusive in itself, and foreign to the present subject. Not uncommonly the slighter effects of blood-letting are inaccurately overlooked or ignorantly neglected. But where that is not the case, it may be observed that particular causes of disease, when not alone completely efficient, are often applied without inducing any morbid effect. Hard would be the fate of mankind were every species of contagion to infect every person to whom it might be applied. To argue, that habitual bleedings are no cause of apoplexy, because apoplexy is not constantly induced, is just as rational as to deny the very power of a pestilential contagion, because it has been applied to thousands without exciting the pestilential fever. To produce a disease, two particulars in general are requisite; first, the predisposition of the body; secondly, the application of the exciting cause. Without the predisposition we are often exposed with impunity to otherwise very active causes of disease; and, without the application of the cause, the predisposition may continue with us through life without inconvenience. With regard to the latter part of the objection, that other causes more powerful, acting in conjunction with habitual blood-letting, may probably have produced the effects which have been enumerated, it is evidently foreign to the purpose. We grant that full living and the neglect of exercise may very powerfully assist in exciting the consequences of plethora. It is believed, too, that there are men who would rather submit to be bled even once a month, with the privilege, in the meantime, of indulging their vitiated appetite at large, and of enjoying the pleasures of ease, than by living a temperate active life, possess the most perfect state of health, the free gift of heaven, independent of the assistance of art. Yet the argument just advanced appears still decisive, that habitual blood-letting often produces a sanguine fulness of the vascular system, liable to be followed with pernicious effects, and is, therefore, absurd, and highly detrimental to health

The following are the observations of the surgeon of the western regiment of Kentish militia, England, on the effects of blood-letting. They plainly prove the inutility and absurdity of bleeding for the "cure of any disease with which we are acquainted." His language ought to be written in letters of gold. He remarks:

"I have been upward of six years surgeon of the western regiment of Kentish militia, during which time our number of sick has never been inconsiderable; whereby much opportunity of practice has been afforded me. I have been in the habit of keeping a journal of the different cases as they occurred, wherein I carefully noted every symptom of which the patient complained, the various remedies exhibited, the time when, and with what view given. I also marked every change that took place in the course of a disease, and the effect of the medicine made use of; and, lastly, my own opinion of the method of cure which I adopted. In the course of my practice I have endeavoured, on every occasion, to determine the justness of preconceived theories by experience, and on every subject to think for myself, uninfluenced *by the tenets of school or the opinions of others*. The prevalence of any mode of practice is certainly not a clear proof of its being useful, nor is it a sufficient recommendation that it may be practised with safety. If it is not evidently beneficial, it ought to be laid aside. In this light I consider that the custom of bleeding, as a means of cure in febrile and other diseases, which I have no hesitation in asserting, is not necessary in any complaint with which we are acquainted. If we grant that *any deviation from the healthy state denotes debility, either general or partial*, surely whatever has a tendency to debilitate farther, it is reasonable to suppose, ought to be carefully avoided. It certainly cannot be denied that, in every disease wherein bleeding has been used, complete recovery has been protracted, owing to the debility thereby occasioned. We are directed to use blood-letting to lessen irritability, to take off the *phlogistic diathesis*, to deplenish the bloodvessels, and to prevent inflammation. I know by experience that these indications can be fulfilled much better, with less danger, by other means. Though the ill effects of the loss of blood, unless excessive, are seldom perceivable in youth, yet they rarely fail of being felt before the age of forty-five. People who have been often bled when young, about this period of life begin to be afflicted with chronic pains: they recover very slowly from fits of illness, and are very liable to febrile paroxysms and a variety of other disorders. I have rarely been deceived in my conjectures respecting patients of this description, when I have met with them. The cases mentioned by Dr. Denman show that it does not prevent inflammation or abortion; nor is it proved that, by taking away blood, we lessen the diameter of the bloodvessels, as we find that six ounces from a large orifice has a greater effect than twenty from a small one.

SECTION II.

DR. VAUGHAN'S CASE OF DEATH OCCASIONED BY BLEEDING. FROM THE LONDON MEDICAL AND PHYSICAL JOURNAL.

Mr. Charles Green, saddler, in North Fleet-street, a man about thirty-five years old, athletic and convivial, was bled on Sunday in the arm. The wound in the vein was very large, and the discharge of blood from it was

profuse, quick, and difficult to be stopped. When stopped, however, the arm was kept quiet, and no pain was felt in it all the next day, nor indeed till Tuesday evening. At this time a pain was felt at the wound, particularly below, extending from it as high as the middle of the arm. The pain increasing, Mr. Green soon began to experience some pain in the head and some confusion of thought, which, together with extreme anxiety, restlessness, shortness of breath, and frequent rigours, made him declare to his wife his apprehension that his having been bled would presently cost him his life. A surgeon was sent for on Wednesday. On Friday, by twelve o'clock, when I saw Mr. Green again, the tumour of his arm had totally subsided, and there were evident marks of inflammation from the bend of the arm to the axilla. But, alas! though Mr. Jones had, in my absence, applied sinapisms to the feet with a view to relieve the head, yet the disease, which had a regular time of appearing and ending, went on with such celerity and increase, that Mr. Green died this very day, (Friday,) in less than three hours after I left him.

Dr. John Pully's Observations on the Effects of Bleeding, in relation to the above case.—There are evil symptoms following the use of the lancet not depending on the action of any morbid poison; not resting on the unscientific conduct of the operation; but owing their appearance to a peculiarity (call it irritability, if you please) of constitution. Sometimes an abscess forms in a cellular membrane around the puncture from the lancet, which commonly approaches to the size of a walnut; and, if the habit be very bad, the inflammation will extend far around, and a considerable sloughing of the parts may be the consequence, insomuch as to render the removal of the limb a matter of necessity: and even after amputation the stump will, in all probability, assume the like disposition to slough. In either case the symptoms of irritation may be great enough to destroy life. When the vein is disposed to inflammation, much pain is felt after bleeding, and around the punctured part shortly appears a redness and swelling, which soon extends along the arm, both above and below the elbow. The arm feels knotty, and pain is given on the touch. The inflammation and swelling sometimes extend to the breast. The accompanying symptoms of irritation are always great; sometimes producing delirium, and even the death of the patient. It is said that horses, after bleeding, are not unfrequently attacked with this affection of the brain. On dissection, pus has been found in the vein, and even in the heart. It has been imagined that the inflammation has been induced by the external orifice not being effectually closed: but this idea is by no means correct.

SECTION III.

BLEEDING IN PLEURISY.

I AM perfectly satisfied that there is no necessity of bleeding scarcely in any case. A few days ago I was called to a patient labouring under a violent attack of the pleurisy. Almost every practitioner, however averse to blood-letting in general, recommends it in this disease. As soon as I examined the person, he requested me to bleed him, and give a dose of mercury and rhubarb, as a certain physician always was in the custom of doing in this complaint. I intimated to him that nothing was more common than for physicians to disagree, and hoped that he would abide by my directions

I, in the first place, ordered a decoction, which produced a most copious perspiration. This was about four o'clock, P. M. Early the next morning a vegetable purgative was administered. I called to see him on the same day about twelve o'clock, when I found the inflammation and cough had subsided; the pain in his side, which was very acute, entirely gone, and all the symptoms of the disorder, which were violent in the extreme, (insomuch that his friends dispaired of his life,) abated. I asked him how he felt? He answered, I am well. In the morning he was not able to articulate a single sentence. Had this person been treated according to the present system of depletion, and had his constitution been vigorous enough to have resisted the force of his disorder, together with the dangerous treatment, he must, in all probability, have been confined to his bed for the space of three months; instead of which, in four days he was able to attend to his ordinary business. Did physicians know the number of people killed by bleeding, I am persuaded they would abolish such an irrational practice. It always endangers the life of a person, and never fails to aggravate his disorder; and, if so fortunate as to recover, he experiences a train of evil consequences through life.

The blood is properly called the *vital fluid*, and the life of a person is said to be in the blood. We know that, just in proportion to the loss of this substance, is our vigour and strength taken from us. When taken from the system, by accident or the lancet, it is succeeded by great prostration of strength, and a derangement of all the functions of the body. These effects are invariably, in a greater or less degree, consequent on bleeding. Is it not, then, reasonable to suppose, that what will debilitate the strongest constitution in a state of health, will be attended with most serious evils when applied to a person labouring under any malady? Is it not like throwing spirits on a fire to extinguish it? But, says one, we must deplete the system, empty the bloodvessels, and take away the strength to arrest the disorder. In other words, we must make the patient worse, before we can make him better.

This argument shows how ignorant medical men are of the animal economy, and the indications and cure of diseases. No system could be invented better calculated to counteract the healthy efforts of nature. Bleeding is immediately resorted to in all inflammatory complaints; but did practitioners know the nature and design of inflammation, their treatment would be different. In fever it is produced by an increased action of the heart and arteries to expel acrid and noxious humours, and should be promoted until the irritating matter is dislodged from the system. This should be effected in general by inducing perspiration; to produce which, a preternatural degree of heat or inflammation must be excited by internal remedies. Fever is nothing more nor less than a wholesome and salutary effort of nature to throw off some morbific matter, and, therefore, every means to lessen this indication proves injurious. Bleeding, in consequence of the debility it produces, prevents such indication from being fulfilled.

I have now a London periodical publication before me, in which the editor laments that we have no better means to subdue inflammation than by bleeding. He remarks:

"Our most valued remedies against inflammation are but ill adapted for curing that state of disease. They do not act directly on the diseased part; the action is only indirect; therefore it is imperfect. Bleeding, the best of any of these remedies, is in this predicament. The direct action of bleeding is only to lessen the quantity of blood. Now, suppose, as often

happens, that a person is apparently well to-day, and he is taken ill with an inflammation of the lungs to-morrow; in such a case it will, perhaps, be necessary to take away several pounds of blood from the patient, and yet the quantity of blood in his body must have been much the same just before the attack, when the person was in good health, as it was afterward when the disease had commenced. The bleeding, therefore, cannot be employed to lessen the quantity of blood. Some other reason must exist.

The truth is, that lessening the quantity of blood is the best mode we know of to control that ebullition of the circulation which forms the important feature of the inflammatory state: but it is evident that this action of bleeding on the disease is only an indirect action; and it is, moreover, true that it is positively injurious to the constitution to take away so large a quantity of the vital fluid, as the blood is very properly called."

I was called a few days ago to see a lady who had been bled seventeen times within a few months, for some inconsiderable complaint. The last blood drawn was as transparent and limpid as water. She was so far exhausted as to be unable to walk; she was reduced to a state of misery: her pulse languid; her countenance ghastly; her extremities swollen; and evident symptoms of approaching dissolution. I might cite scores of cases in which people have either lost their health or lives in the same manner. In pneumonia, or inflammation of the lungs, blood-letting is practised without reason or mercy. *Again and again* the patient is bled, till his strength is completely exhausted; when a free perspiration and other means would afford immediate relief, without destroying the constitutional stamina.

Dr. Sandwich, an English surgeon, has written a treatise recommending in the highest terms the most copious depletions. He informs us, that in every species of inflammation it is necessary "to bleed in quick succession;" and that, unless we speedily repeat our bleedings, we often actually increase the violence of the disease, and convert what was mere congestion into positive inflammation. He, indeed, lays down the following position as a practical maxim: "Whenever an inflammation is not cured by the first bleeding, the operation should be repeated every two, four, or six hours, until it is."

Dr. S. presents a case in point, viz., of pneumonia, in which thirty ounces of blood were first taken. This was at twelve o'clock, on the 28th of March. At eight o'clock thirty leeches were applied to the affected side. At six the next day, twenty ounces more of blood were taken; in the evening sixty small leeches were applied to the side. On the third day, at six, the pulse being 110, twenty ounces of blood were taken, and a physician was sent for. "The relief obtained by the bleeding was not at this time decisive. *The blood still showed no size;* nevertheless, I was certain," says Dr. S., "the disease was pneumonia," and anxiously pressed another bleeding, which was overruled. Another physician was accordingly sent for; but, in consequence of a difference of opinion between the two, the patient was not again bled till the afternoon of the 2d of April, "when twenty-two ounces of blood were abstracted, with decided relief and syncope." After this there was a suspension of active measures, until the 6th, when inflammation, evidently to Dr. S. and one of the attending physicians, still existing in the pericardium, the patient was again "bled, *usque ad deliquium*, (fifty ounces,) and was in a state verging on syncope for several hours." Early in the morning, on the 7th, twelve ounces more were abstracted; and during the following three days the system was in a state of torpor. On the 11th, in the evening, there was a relapse. In the morning (4 o'clock, A. M.) twelve

leeches were applied, and sixteen ounces of blood taken from the arm. Our author's next date is the 20th; but he speaks of this as of a day immediately succeeding the 11th; for he says, "a comfortable night was the result of these measures, (the measures of the 11th,) but the next morning we found it necessary to abstract sixteen ounces more of blood." On the 22d thirty ounces more were taken. On the 25th twenty-four good leeches were applied to the side. At eight o'clock on this day "the patient was almost exanimate, the face corpse-like, and the pulse vermicular and past numeration." The debility the whole of the next day was extreme. On the following morning the memory was gone and the mind imbecile.*

Dr. Reid, in the Medical and Physical Journal, reports as follows: The reporter of Finsbury Dispensary has, this last month, been impressed more deeply than ever with the fatal folly of bleeding. A person who, at a very advanced period of life, was sinking under the combined operation of age and intemperance, was advised, on account of a difficulty of breathing, arising from general debility and a mutilation of the pulmonary organs, to experience frequent and extravagant evacuations from the arm; which, of course, in a very short time put a period to his terrestrial existence.

If the employment of the lancet was abolished altogether, it would perhaps save annually a greater number of lives than in one year the sword has ever destroyed. Medical men are sometimes apt to consider themselves, and are generally regarded by others, as insignificant and inefficient, unless they are doing something; that is, either performing some painful operation or administering some powerful remedy. Whereas the fact is, that in no inconsiderable proportion of cases the best thing that can be done is, to let the patient alone.

An inflammatory fever, or a habit indicating excess of general excitement, in this enervated age, very rarely occurs; and, local inflammation, such as acute rheumatism, gout, or quinsy, will seldom, with impunity, admit the opening of a vein. In the last disease the writer has had more especial reason to entertain this opinion, in which he is confirmed by the authority of a man celebrated as a philosopher, although not a member of the medical profession. "Ah, these accursed physicians! they will certainly kill her with their blood-lettings. I have been myself extremely subject to the quinsy, and have invariably found that bleeding increased its violence; when, on the other hand, I contented myself with using a gargle, and putting my feet in warm water, I generally found myself well the following day."

How absurd, to take away any part of that fluid which conduces most essentially and immediately to the vigour and support of the constitution.

Dr. Whyth relates a case which proved fatal in consequence of bleeding A delicate or nervous girl, having chilled herself at the return of a critical period, was next morning, at four o'clock, seized with stupour and difficulty of speaking or moving. She was soon after bled and blistered. At eight o'clock she could neither speak nor swallow, had a hiccough, and was pale and cold, though her pulse and breathing were natural. Besides taking medicines, she was now bled again, and a third time in the afternoon, and died at ten o'clock—eighteen hours after her seizure. No one can doubt for a moment but that this lady was killed by her physician.

The reporter was called up last evening, suddenly, to a patient labouring under inflammation of the stomach. An evacuation of blood, which exaggerates that complaint by inducing debility, was abandoned. I administered

* Was ever a bullock more completely bled to death!

a purgative, in the form of an emena, which afforded relief soon after it was given. Two persons were this day slain in this neighbourhood by the lancet, and it was expected that another would soon share the same fate Well might this philosopher exclaim, "Ah, these accursed physicians!"

If one single man can do so much mischief with this instrument, the lancet, what mischief is done throughout the world by thousands of others!

Dr. James Mann, who was hospital surgeon to the army of the United States in the years 1812, 1813, and 1814, relates the following case: He says, "a man at Rochester was bled eight ounces, and within twenty-four hours took *one hundred grains of mercury*, *one hundred grains of jalap*, *two ounces of castor oil*, and *four ounces of salts*." He adds, "this man died, suffocated while walking his room."

SECTION IV.

REMARKS ON BLEEDING. BY DR. ROSS.

Rush says, in his account of the yellow fever of 1793, page 275, "As a proof that I *did not draw one ounce of blood too much*, it will only be necessary to add, that hæmorrhages *frequently* occurred after a third, a fourth, and, in one instance, *after* a sixth bleeding had been used." To this statement a Scotch physician, who was travelling through the United States, and who happened to be then at Philadelphia, made the following reply, by which the reader will be fully convinced that the spontaneous hæmorrhage, instead of being prevented, is produced by copious bleeding, and that Rush's proof of the efficacy of his remedy is, on the contrary, a proof of its mortal effects.

It is confidently asserted, that the spontaneous hæmorrhages, which frequently occur in malignant fevers, are solely occasioned by the omission of copious blood-letting; and as these excessive hæmorrhages appear in many cases to be the immediate cause of the death of the patient, we are told this fatal termination would have been prevented, if blood had been freely drawn at any preceding period of the disease.

This reasoning is so specious, that, in the minds of all those readers who are unacquainted with the anatomy and pathology of the human body, it must be decisive.

We must cease to look for its explanation in the superabundance of blood, and fix our attention upon what appears to be its proximate cause, the extreme debility that prevails at the time of its occurrence.

That excessive weakness alone is sufficient to account for spontaneous hæmorrhage,* will be completely proved by observing the frequency of its occurrence in a disease of pure debility, where there is no febrile action, and where, from the situation of those subject to the disorder, at and preceding the commencement of it, there can be no reason to suspect fulness of the vascular system.—I allude to the sea scurvy. This complaint afflicts not only seamen in long voyages, who are obliged to subsist on aliment, the nutritive quality of which has been diminished by time and the mode of preservation, but it also aggravates the miseries of winter to the poorer inhabitants of northern climates.

* What folly, then, to induce a greater degree of debility in this and other disorders, by bleeding.

Among the symptoms of this shocking disease none are so formidable as spontaneous hæmorrhages: they are apt to occur upon the slightest motion; sometimes the bleeding is external, sometimes internal, and frequently fatal So slowly does death advance from any other cause in this disease, that, should the wretched patient be so fortunate as to escape hæmorrhage, he may linger out a miserable existence, till the conclusion of his voyage, or the approach of summer enables him to procure sustenance more nutritious; and the danger of spontaneous hæmorrhage is removed by his returning strength, though accompanied by increased fulness of the bloodvessels.

The blood does not escape in these diseases in consequence of violent action in the moving powers, nor from any distention of the vascular system by the quantity contained, but from inability in the extreme vessels to resist the slightest impulse.

From all this we learn that Rush's theory of bleeding, to prevent hæmorrhage, is very erroneous, inasmuch as it proceeds from relaxation and debility, and not from over-fulness or distention of the bloodvessels. It shows also how easily we may be led into a dangerous practice by false theory.

SECTION V.

ON THE MORBID EFFECTS OF THE LOSS OF BLOOD.

Health cannot exist without a natural and uniform balance between the *nervous*, the *circulating*, and the *organic* systems, and which state of the system, undisturbed by art or other causes, is always present. Now, bleeding has the direct effect of destroying this relation, and, consequently, to bring on a long train of evils and diseases. In some cases of bleeding there is no reaction, in others it is excessive; and this is owing to the age, climate, temperature, &c. Indeed, we may regard the practice of bleeding to cure disease much the same as we do gun-shot wounds, accidents, hæmorrhage, &c. The effects of loss of blood then require to be traced in their relation to the nervous, vascular, or circulating and solid parts of the system, in order to ascertain the whole consequence of this common practice. They involve questions of the deepest interest in regard to physiology, health, and the treatment of diseases.

Dr. Marshall Hall, an English physician, has written a treatise on the "morbid and curative effects of loss of blood," in which he demonstrates the pernicious effects of blood-letting in a variety of diseases. He states, in his introductory remarks, that the subject has been by no means understood until very recently. He has given many facts, "to afford, he states, not only an additional, but an unbiassed testimony to the truth of the general principles laid down." In farther discussing this subject, I shall refer to this work, and make such extracts from it as are calculated to corroborate my views.

"The question of the morbid effects of loss of blood appears to me," says the author, "not to have sufficiently engaged the attention, either of the physiologist or of the practical physician; yet to both they offer objects of inquiry of great interest and importance."

SECTION VI.

ON THE IMMEDIATE EFFECTS OF LOSS OF BLOOD.

1. *Syncope or Fainting.*—The most common effect of the loss of blood is syncope or fainting, which appears to arise from the usual stimulus of blood of the brain being withdrawn, or a deficiency of nervous fluid or excitement. This very fact is sufficient to show that abstracting any portion of the vital fluid from the system, instead of acting as a remedial agent, does violence to nature, by deranging the animal economy. Every physician who might be called to a person suffering under the ordinary effects of the loss of blood, would prescribe the same remedies as if it proceeded from disease. A small quantity of blood abstracted sometimes produces the most alarming and dangerous consequences; but fainting is the most usual effect that follows the use of the lancet. In ordinary syncope, from bleeding, the patient first experiences dizziness; then a loss of sensation; respiration is affected, being suspended until the painful sensation produced rouses the patient to draw deep and repeated sighs; the heart and pulse beat slow and weak; the face and general surface become pale, cool, and bedewed with perspiration; nausea or sickness at the stomach, &c. On recovery, there is sometimes momentary delirium.

In great hæmorrhage, or excessive discharges of blood, these symptoms assume a more frightful aspect; the countenance becomes more and more pale and sunk; every symptom shows or denotes an impaired state of the energies of the brain; the breathing becomes stentorious, and at length affected by terrible gasping; pulse feeble or imperceptible; heat of the body departs; the extremities become colder and colder, notwithstanding the application of external warmth; at length the strength fails, and the patient sinks, gasps, and expires.

2. *Convulsions.*—The next most common effect of bleeding after fainting, is convulsion. It occurs particularly in children, and in cases of the slow and excessive loss of blood. In this case also the brain seems to be the primary seat of the injury, arising from exhaustion of its customary stimulus, the blood. It is a matter of surprise that physiologists have never noticed the connexion or correspondent relation between the nervous and the vascular system. Health cannot be preserved unless a regular and uniform balance is maintained. It is in consequence of this balance being lost that the abstraction of blood is attended with such pernicious effects. Dr. Hall relates the following two cases of convulsions:

1. "A physician, aged thirty-four, became affected with inflammation of the larynx. He was bled freely on two successive mornings at his own instance. In the afternoon of the second day, the disease being unsubdued, he was bled a third time, placed in a rather inclined position upon a sofa. The blood was allowed to flow until thirty-four ounces were taken. He then suddenly fell upon the floor, violently convulsed; and he remained for some time afterward in such a state of syncope as to render his recovery very doubtful: being carried to bed, however, and cordials being administered, he slowly recovered.

2. A similar case is given by Mr. Travers. This gentleman observes, 'Some patients cannot bear the loss of blood: it gives rise to prostration, attended with convulsions, in which the circulation fails so alarmingly as to require watching for several hours, and the repeated administration of stimu-

lants to restore it. A very intelligent surgeon, in the neighbourhood of London, in bleeding a clergyman to the extent of twenty ounces, was compelled to remain with him during the whole of that day; and, notwithstanding frequent recourse to brandy, continued long apprehensive for the patient's life. He represented the convulsions, which returned in paroxysms, as resembling the puerperal in their severest form.'"

A writer states, "that the loss of blood in operations, though insufficient to create alarm for the patient's safety on that score, obviously predisposes to the convulsions which sometimes prove fatal, especially to children. I have known an infant die of convulsions on the day after the removal of a small mark upon the head."

Puerperal convulsions often arise from loss of blood. One of the common causes of fits in children also arises in consequence of the loss of blood. By the experiments of Dr. Kelly upon dogs and sheep, fits or convulsions were found to be a frequent consequence of exhaustion arising from the loss of blood.

3. *Delirium.*—Delirium occurs as an immediate, and mania as a remote, effect of the loss of blood.

The following case illustrates this fact: A young man, aged thirty, had lost much blood from the arm and by leeches; and, under the operation of an active purgative, fell into complete syncope or fainting. He was found perfectly colourless and senseless, and affected with rattling in breathing. He made a convulsive effort to expectorate, and the blood rushed into his cheeks. He then began to recover, opened his eyes, and complained of deafness; chills followed; fever; constant delirium; numbness of the feet and legs, &c. He finally, however, recovered.

A person fell and hurt his back. For four days in succession he was bled, followed by faintness, sickness, and retching, with much affection of the head; paleness; sighing; hurrying alarm of mind; extraordinary noise and visions, with delirium, which finally destroyed the patient.

Convulsion and Delirium combined.—Mrs. —— miscarried on the third month of pregnancy. There was much hæmorrhage; she turned pale, and nearly fainted; became affected with convulsion and delirium.

Delirium sometimes occurs in certain habits from the loss of even a small quantity of blood.

4. *Coma or Lethargy.*—A comatoze state is often followed by blood-letting, which is so nearly allied to apoplexy, that it is difficult to discriminate between the two diseases. It very often appears in infants and children.

Mr. C. Bell observes, "When a man who has cut his throat is brought into the hospital, he is in a state very much resembling that which some authors have described as accompanying severe wounds. Though sensible, he is cold, pale, taciturn, and very often, although such men are desirous of living, sink within twenty-four hours. This appears at first to proceed from a strong impression on the mind; that is, I believe, the consequence of loss of blood, and the shock thus given to their powers of life."

5. *Of Sudden Death from the loss of Blood.*—Sometimes the loss of blood suddenly proves fatal. One of our most distinguished citizens, it is stated, lost his life the other day by a single bleeding.

A case of this kind is mentioned in the Lancet. A person received a slight injury, for which he was first bled eighteen ounces, and at noon twenty ounces more were taken. Next day the pulse was ninety, full, and rather jerking: eighteen ounces more were taken, and at night the same quantity. Next day he was ordered to be bled eighteen ounces more. In two hours

afterward another physician was called in consultation, when twenty ounces more of blood were drawn, making in all one hundred and twelve ounces in this short space of time. After the last bleeding the pulse became a mere flutter, and the man only survived a few hours. On a post mortem examination, the vessels about the heart were quite empty; the brain very pale, almost colourless; the liver was also of a very light colour.

I shall here give, in illustration, the observations on the medical treatment of General Washington's last illness, by John Reid, M.D., physician to the Finsbury English Dispensary, and professor of the theory and practice of physic.

In reading the official report of the death of General Washington, as stated in the newspapers, &c., I should imagine there were few medical persons who did not feel astonishment at the extraordinary manner in which that great man was treated by his physicians during his last and fatal indisposition.

Some time in the night of the 13th of December, it is said, the general was seized by a disease called the cynanche trachealis, (croup.)

During the same night he sent for a bleeder, who took from him twelve or fourteen ounces of blood.

Next morning a physician was sent for, who arrived at Mount Vernon at eleven o'clock; when, imagining danger in the case, he advised the calling of two consulting physicians.

In the interval, however, he thought proper to employ, in spite of the twelve ounces that had already been expended, two copious bleedings. Now, when we consider that these are called *copious*, and the other is not noticed as such, and all indifference with which a future *most copious* bleeding is afterward mentioned, we may presume that each of these was twenty-five or twenty ounces at least.

After this "two moderate doses of calomel were administered." I know not exactly what an American moderate dose of calomel may be, but if it is as fair to presume it be in proportion to the bleedings, we may conclude that it was at least very considerable.

Upon the arrival of the first consulting physician it was agreed that, as there were no signs of accumulation in the bronchial vessels of the lungs, they should try another bleeding.

Now, this appears to be perfectly inexplicable. As there were at present no signs of accumulation in the bronchial vessels of the lungs, they were driven to another bleeding. Hence it will be seen, that this last bleeding was to produce an accumulation in the bronchial vessels of the lungs. There was great difficulty of breathing, great inflammation; but as there was as yet no accumulation in the lungs, they were determined to induce that also, and, as a likely means of inducing it, had recourse to the most extravagant effusion of blood. This is not an unfair interpretation of their words; but it could not have been their real meaning: their real meaning it is impossible to discover. In addition to all their previous venesections, thirty-two ounces are now drawn! The medical reader will not be surprised to find that this was unattended by any apparent alleviation of the disease.

In the next place, vapours of vinegar and water are frequently inhaled Two doses of calomel were already given; but this not being deemed sufficient, ten grains of calomel are added—nor is even this sufficient. Repeated doses of emetic tartar, amounting in all to five or six grains, are now administered. It is said the powers of life now seemed to yield to the force of

the disorder. To many it may appear that the yielding of the vital principle, in these circumstances, was not altogether owing to the force of the disorder.

The patient, lying in this feeble and nearly exhausted state, is to be still farther tormented. Blisters were next applied to his extremities, together with a cataplasm of bran and vinegar to his throat.

It is observed that speaking, which was painful from the beginning, now became scarcely practicable. When we reflect upon the extreme weakness to which the patient must, by this time, have been reduced, and that he had both a blister and cataplasm of bran and vinegar to his throat, can we wonder that speaking would be scarcely practicable! respiration grew more and more contracted and imperfect, until after eleven o'clock on Saturday night, when he expired without a struggle.

Think of a man being, within the brief space of little more than twelve hours, deprived of eighty or ninety ounces of blood; afterward swallowing two *moderate* American doses of calomel, which were accompanied by an injection; then five grains of calomel and five or six grains of emetic tartar; vapours of vinegar and water frequently inhaled; blisters applied to his extremities; a cataplasm of bran and vinegar applied to his throat, upon which a blister had already been fixed: is it surprising that, when thus treated, the afflicted general, after various ineffectual struggles for utterance, at length articulated a desire that he might be allowed to die without interruption?

To have resisted the fatal operation of such herculean remedies, one would imagine that this venerable old man ought at least to have retained the vigour of his earliest youth.

A friend of mine, a medical man, saw an individual who went to sleep while some leech-bites were bleeding; and when he awoke in the morning he was so exhausted and so sunk, that he never rallied from the effects, and died.—*Armstrong*.

Another medical friend of mine lost a brother in the same way, from the bleeding during the night, after the application of leeches.—*Ib*.

A friend of mine, a general practitioner, extirpated a small tumour from the breast of a female. After the operation, which was extremely well performed, the patient fainted, and a surgeon and physician who were present became alarmed; and, without affording any assistance, kept her erect. My friend immediately laid her in a horizontal position, but it was too late, for in that short interval she had died.—*Ib*.

A patient was bled in the arm; a large lump of round linen was applied, and covered by a twisted tape. Inflammation occurred at the orifice, spread to the adjacent cellular membrane, and erysipelas was the consequence. Fever occurred, with violent inflammation of the brain, and the patient sunk and died.—*Ib*.

I once saw a patient bled for a supposed inflammation of the lungs, by two professors of medicine, till 160 ounces had been lost, though she had but a slight degree of fever. The consequence was, that the pulse was not at all reduced, but she died of the blood-letting.—*Ib*.

I witnessed a case in which two physicians bled a patient till upward of 160 ounces of blood had been drawn, for a supposed affection of the lungs. The patient then became dropsical; but still the hard round pulse remained till she died; and, upon examination of the body, not a trace of disorder or disease was found about the lungs, but the heart was exceedingly thickened. If this patient had been treated mildly, the probability is, that she might have lived on comfortably for years.—*Ib*.

6. *Of Exhaustion with Excessive Reaction.*—Exhaustion from blood-letting may assume several different characters: it may be attended with excessive or defective reaction, or with actual sinking of the vital powers, causing delirium or lethargy. When there has been great loss of blood, or repeated blood-lettings, the pulse, instead of being slow and feeble, acquires a morbid frequency, a throbbing beat, and in some cases there is excessive reaction.

It is from this kind of pulse that physicians are so frequently deceived. They bleed and bleed, because the pulse is tense and full, when, in reality, this very fulness is occasioned by the bleeding: thousands are bled to death in consequence of these erroneous views.

The reaction that follows bleeding is sometimes followed by symptoms still more severe. The brain becomes very much affected; great intolerance of light and sound; pain in the head and delirium; the action of the heart and arteries are morbidly increased; great palpitation; throbbings of the carotid arteries; the patient is greatly alarmed, and impressed with the feeling of approaching dissolution; fainting; the pulse will sometimes rise from 100 to 130, with a bounding of the artery; respiration is frequent and hurried, attended with panting and sighing, restlessness, and heat of the skin; sudden dissolution has sometimes occurred upon the slightest exertion.

"I was about," says a physician, "to bleed in such a case; but, fortunately," observes he, "for my patient and for myself, the repugnance of the patient to general bleeding prevented me from using the lancet, and so saved her life."

Dr. Cooke relates a case which corroborates the doctrine here maintained. He says; "After uterine hæmorrhage, and also after copious depletion on account of pulmonary and other inflammations, I have frequently observed the symptoms of brain congestion; and which has generally appeared to arise from the excitement occasioned by some mental effort, though occasionally it has arisen without an evident cause. While the other parts of the body appear comparatively bloodless, the vessels of the head throb violently; there is severe pain; confusion of intellect, sometimes to such a degree as to threaten delirium; the pulse at the wrist is usually small and vibrating, and the countenance distressed. When I first observed these symptoms I was led to abstract blood, from an apprehension of inflammation; but I did harm; for if the urgency of symptoms was diminished, the susceptibility to a recurrence was increased and restoration to health was protracted.

This susceptibility to local congestion, after excessive loss of blood, depends upon the want of that due balance which, in a state of health, subsists between the nervous and vascular or circulating systems.

A lady aged twenty-five had been frequently bled, on account of symptoms in the head, which had followed an injury. Considerable relief had followed each bleeding, but the symptoms had soon returned, so as to lead to a repetition of the bleeding at short intervals, and this had been going on for several months. When I saw her she was stretched upon a couch, her face of the most death-like paleness, or rather of the paleness of a stucco figure, her pulse very rapid and as small as a thread, her general weakness extreme The mass of blood appeared to be reduced to the lowest point that was compatible with life, but she still complained of frequent headache, violent throbbing in the head, confusion, and giddiness. It was evident that evacuation could be carried no farther; and, in consultation with a very intelligent medical man who had the charge of her, it was agreed, as a last experiment

to make a trial of the opposite system—nourishing diet and tonics. In a fortnight she was restored to very tolerable health.

Where bleeding has been carried to a great extent, symptoms frequently occur, which, in reality, arise from the loss of blood, but which a superficial observer will be led to attribute to the injury itself; and concerning which, indeed, it is sometimes difficult even for the most experienced surgeon to pronounce, in the first instance, to which of these two causes they are to be referred. *Repeated copious blood-letting is of itself adequate to produce a hardness of the pulse, which we shall in vain endeavour to subdue by persevering in the same system of treatment.* In many individuals it will produce headache and confusion of mind, not very different from what the injury itself had previously occasioned. These things may be observed, especially in young females who are disposed to hysterics, and whom I have often known to suffer from a continued aggravation of such symptoms as I have described, while the system of depletion has been continued—recovering immediately on the use of the lancet being laid aside, and on their being allowed to take solid nourishment, with occasional doses of carbonate of ammonia.

7. *Of Sinking, or more Sudden Dissolution.*—If the loss of blood be repeated still farther, not only syncope, but a state of sinking is induced; the effects of reaction are of course in this case permanently relieved, while a different series of phenomena, already fully described, is established. This transition of reaction into sinking may either be spontaneous, or it may be the effect of a last blood-letting—the state of syncope scarcely ceasing, no reaction following, but the total though gradual failure of the vital powers.

When the last bleeding has been considerable, it has, in some cases, been followed by the most dreadful gaspings and other convulsive motions, and death. It should be observed that, between the most gradual sinking and the most sudden dissolution, as the effects of blood-letting, there is every intermediate shade, with the phenomena of which it is of the utmost importance to be acquainted. These varied phenomena may, I think, be collected from the observations which have been made in this and the preceding sections. They are farther illustrated by the following cases, which exemplify the fatal effects of loss of blood, as supervening more and less gradually upon the use of the lancet:

Mrs. ——, aged thirty, had been affected with what appeared to be a slight attack of influenza; she was seized with chills, and soon afterward the pains of labour came on, and issued in delivery in about fifteen hours: at 9 o'clock, A. M., this was followed by much fever, the countenance being flushed, the pulse frequent, and the breathing difficult, with incessant cough; these symptoms increased toward evening and in the night, and about forty ounces of blood were drawn from the arm at two blood-lettings, and the next morning twelve leeches were applied to the chest, with great relief. In the evening a blister was applied. The night was passed more comfortably; she dozed a little and was cheerful, and continued relieved in the morning. As a preventive against a relapse, however, three tea-cupsful of blood were taken. The patient became faint during the flow of the blood, sank from that time, and never again rallied; she became extremely feeble, and could scarcely articulate; and, from being cheerful the day before, was now impressed with the conviction of approaching dissolution, and expressed herself as unable to recover from the last blood-letting. During this day, Saturday, and during the succeeding two days, there was a state of extreme exhaustion, and still a sense of load at the chest and pain of the side.

On the succeeding Tuesday the countenance was observed sometimes to

flush to a deep scarlet, and then to become quite pallid, and a profuse perspiration frequently ran down the face; the pulse was extremely frequent, and the pain severe on coughing: there was no delirium, though she awoke hurriedly from sleeps which she described as "just like death." During the following four days there was little obvious change; distressing faintings usually came on about two or three o'clock, P. M. On the Sunday she became drowsy and evidently more sinking; this state continued to increase, and she died in the evening of the following day.

Mrs. —— was of a pale and sallow complexion and weak constitution. She was taken with severe pain in her head, which appeared to be relieved by bleeding or purgatives. Subsequently she became indisposed: she dreaded being bled, from the faintness she had before experienced from it, and said it would certainly kill her. Notwithstanding which she was bled to the amount of sixteen ounces.

On the morning of the 8th Mrs. —— appeared to be relieved in every respect; the heat of the surface and the pain of the head were diminished: the blood presented the buffy coat. It was thought proper, however, to abstract more blood. Four tea-cupsful were taken; the most dreadful fainting followed, with gasping, open mouth, a convulsive action of the diaphragm, and in an hour or two death closed the scene.

The following case, forwarded to me by a medical friend, is not, I think, unworthy of an insertion:

"A gentleman nearly seventy years of age, the subject of frequent gouty paroxysms, whose constitution was broken down, and who was of a pallid complexion, was suddenly seized with severe pain in the side, hot skin, quick full pulse, and difficulty in breathing. A physician was consulted, who recommended the abstraction of six ounces of blood. The arm was tied up accordingly, the patient being in bed; before two ounces were taken away his pulse sunk, and heavy perspiration came on, with faintness. The patient was placed horizontally in bed; and it was some length of time before his medical attendant deemed it prudent to leave the house.

The blood taken away manifested the usual character of inflammation, but the pain in the side was not removed. On the following morning he was again visited by his physician, who, finding that the pain and other symptoms detailed were not relieved, directed the bleeding to be repeated to six ounces: this was again attempted, but before one ounce escaped he became so alarmingly faint, that he fell back in the bed—the circulation being suspended for a length of time, and his dissolution expected to take place. Stimuli of every description which could at the moment be brought forward, were resorted to; after a considerable lapse of time the heart's action was feebly renewed, but its power was never again restored, and the pain in his side was not relieved. From this time he progressively sank, and in a short time expired."

Dr. Rush, who was such a strenuous advocate for blood-letting, never discovered his error, it appears, until his last disease. He requested his attending physician to bleed him repeatedly; and, when he refused, it is stated that he introduced the lancet into his own arm, and extracted so much of the vital fluid that he sunk under it. It appears that now, for the first time, he saw the delusion in which *he* had been shrouded all his life.

Dr. Dewees mentions the case of a person who was so repeatedly bled in a fever, inducing such a state of debility and sinking, that every stimulant administered availed nothing. He sunk and expired, like thousands of others—a victim to the lancet!

A middle aged man, who for several years had been an asthmatic, applied to a medical man for advice. Symptoms—hoarseness and difficulty of breathing, with frequent bounding pulse. The physician prescribed venesection, to which the patient readily consented, and accordingly about twenty ounces of blood were taken from his arm in a sitting posture, the pulse continuing full and strong, when suddenly he said, "I feel very faint; do lay me down." He was now laid upon the floor in a horizontal position; cold water was sprinkled on his face and volatiles applied to his nostrils, when reaction took place; but, complaining of considerable debility, he was advised to lay an hour or two to recruit; after which he felt relieved, and walked a short distance to his lodgings, but within ten days he expired.

I once bled a young lady in the arm for a suppression of the menses. I had not taken more than half an ounce of blood before she fainted, and continued so long in a state of frightful syncope, that I was really apprehensive that reaction would never take place. However, by sprinkling a few drops of cold water on her face, by the application of volatiles to the nostrils, and the administration of hot brandy sling internally, she recovered.

Another young lady, in New Haven, fainted immediately on the introduction of the lancet into her arm.

A lady in this city was bled for a sick or periodical headache. It produced such a sinking and prostration, that it proved fatal in three hours.

Each successive blood-letting is of course attended with increased risk. There is considerable danger where the reaction is strong; still greater when it is feeble. A large blood-letting, in such cases, may be followed by sudden death. There is greater danger when fainting has been several times induced, and when there is the least tendency to "want air."

SECTION VII.

EFFECTS OF THE LOSS OF BLOOD ON THE INTERNAL ORGANS.

It appears evident that debility, arising from loss of blood, may lead to effusion in the ventricles of the brain, and that such a state of exhaustion is no security against an attack of the apoplexy. Dr. Denman relates a case which shows conclusively that this is the fact. A patient of his had suffered several years by hæmorrhage from the uterus. After passing a day without any unusual complaint, she went to bed in good spirits, but was found next morning in a state of insensibility, &c. She remained in this state about twenty-four hours, and died. Leave was also given to inspect the body, which she often expressed a wish might be done. About four ounces of blood were found in the ventricles of the brain, containing serum or water. This extravasation was clearly the immediate cause of her death, little as it might have been expected, on account of the daily profuse discharge to which she had for so many years been subject.

Dr. Hey, in treating of child-bed fever, relates a case which shows that a loss of blood causes congestion of the brain. She had been bled several times, which did not reduce the pulse. After a few days she died in a state of great anxiety and restlessness. The seat of the disease appeared to be in the head, evidently showing that there was congestion and extravasation of the brain.

Dr. Sweedy relates another case, which corroborates this fact. A lady

had lost much blood during the first months of pregnancy, which caused palsy and delirium.

Dr. Hammond recites a case in point. A lady in confinement lost about three pints of blood, which produced faintness, headache, &c. She was bled to twenty-four ounces, which also produced syncope, but the head was not relieved. The bleeding was repeated, and carried even to fainting. She lost twenty ounces, which produced convulsions. She was much exhausted: the countenance was blenched to an ivory whiteness. She revived and became more comfortable for a few days. She was then attacked with extreme depression; the right arm and leg paralyzed, speech much altered, and swallowing difficult; countenance deathly, and the pulse feeble and scarcely perceptible; all which show the injury done to the brain by the loss of its customary stimulus, by which we see that the blood is the *primum mobile* or *main-spring*, both to the corporeal and mental organization; or, in other words, is the support of body and mind.

Dr. Travers mentions a case of inflammation of the lungs, in which a stroke of palsy, which destroyed the patient, took place in the very act of bleeding. Permanent blindness also sometimes immediately occurs from bleeding. Thousands of cases might be mentioned of a similar nature.

The Lungs.—Physicians are not aware of the effect of the loss of blood upon the lungs. It has the effect of substracting the nervous energy almost the same as if the eighth pair of nerves were divided.

Let a person apply his ear to a patient who has been freely bled for inflammation of the lungs: he will find that their office and powers become so far weakened and diminished as to labour at every inspiration. A peculiar rattle can be heard with or without the immediate application of the ear The bronchial vessels first become clogged or loaded with mucus; the lungs become œdematous, and are no longer capable of decomposing the air, and receiving the oxygen or vital portion of it, so essential to life. Ever since I commenced my practice I have witnessed this fact, the knowledge of which has induced me to withhold the lancet in every case of this kind, no matter how severe the attack; and I know not that I have ever lost a single case in all my practice, where I have been called within a reasonable time. Notwithstanding this, some of my opponents have pronounced me presumptuous for not bleeding.

No one, however, can form an idea of the superiority of our practice over that usually pursued by physicians, *unless tested by actual experience:* the patient recovers in half the time, without that constitutional injury which invariably arises from repeated blood-lettings.

It has been found that the lungs of those who have died of hæmorrhage have been affected by swelling, effusions of lymph, adhesions, &c.

I have not room to enter fully into the effect of the loss of blood upon different parts of the system. Every one knows the tendency to effusion into the cellular membrane. One half of the cases of dropsy arise, in my opinion, from the use of the lancet.

Typhus Fever.—A judicious practitioner informs me that, after bleeding in most diseases for a number of years, he abandoned it altogether, in consequence of the injury that resulted from it. It often induced typhoid symptoms.

Contusions, Injuries, &c.—Many surgeons state that, popular as bleeding is, it destroys the restorative principle, or so far prevents the healing process that the patient cannot recover. One of the surgeons in the New York hospital now declaims much against the lancet in injuries. "Sometimes," he says, "you cannot obtain a particle of blood after a fall, and it is

a fortunate circumstance that you cannot, as life is saved by omitting it." For hundreds of years it has been customary to bleed freely after every accident; but now a new fashion is in vogue, viz., to wait an hour or two before you bleed, or until reaction takes place. What the next fashion in relation to this practice may be, time alone must decide; but I sincerely hope that my maxim will be adopted, which is, after testing its effects thoroughly upon the human system—*seldom or never bleed*.

I shall only give a few more hints on the effects of the loss of blood. Dr. Hall states, that there is a remarkable similarity between the effects of the loss of blood and the state of bloodlessness in chlorosis or obstruction of the menses. Both have a tendency to induce dropsy, extravasation, and, lastly, of ending in a state of great prostration, or even of sudden death: from which it is evident that the capillary and the general circulation is similar in both complaints. The blood appears almost entirely to desert the surface and to terminate in serum or water.

SECTION VIII.

MORBID EFFECTS OF BLEEDING IN INFANCY.

If physicians were aware of the morbid effects of bleeding in infancy, they would have recourse to it less frequently. The bare idea of tying up the arms of infants, and abstracting a portion of the vital fluid, has ever seemed to me not only unnatural, but appalling. Besides the immediate injurious effect which arises from loss of blood in infancy, there are the best reasons to believe that very many complaints are occasioned by it.

Dr. Hall, to whom we are indebted for much very interesting information on this subject, states that, of the whole number of fatal cases of disease in infancy, a great proportion occur from this inappropriate or undue application of exhausting remedies.

"This observation," says he, "may have a salutary effect in checking the ardour of many young practitioners, who are apt to think that, if they have only bled, and purged, and given calomel enough, they have done their duty; when, in fact, in subduing a former, they have excited a new disease, which they have not understood, and which has led to the fatal result.

This question, and that of the effects of exhaustion in infants and children, open a new field for investigation. Almost all our works on infantile diseases are silent on the subject; and yet, without an accurate knowledge of it, I regard it as totally impossible that we should be prepared to watch and treat the morbid affections of this young and tender age. The subject must be taken up and investigated anew. All the affections which may arise from exhaustion must be accurately observed, distinguished from similar affections arising from other causes, and traced back to their origin, and forward in relation to their remedies. In this manner some complaints of the head, convulsive, and even croupy affections will be viewed in a new aspect; and we shall be preserved from some painful dilemmas, into which we should assuredly fall without this knowledge of the effects of exhaustion."

Bleeding, in dropsy of the head and other complaints of children, infallibly plunges the little patient into imminent, if not irretrievable, danger.

There is a complaint peculiar to infants which very nearly resembles the dropsy of the head, and for which it is customary to bleed; but which

like the latter disease, instead of being benefited by any kind of depletion, is only aggravated. An opposite course of treatment is required, viz., stimulants.

Dr. Tweedy, Hall, Hemery, Gooch, and Abercrombie have all hinted at this disease.

The following case is given by Dr. Hall:

I was called a short time ago to see a little girl, aged two years and three-quarters, who had laboured under an attack of influenza. The affection of the chest had been severe and protracted, and sixteen leeches had been applied, besides the administration of other depletory measures, before it had subsided.

The symptoms of the affection of the chest were, however, subdued at last; but the little patient was left extremely exhausted, and in this state a new train of symptoms supervened, not less alarming, and more puzzling than the first. The child fell into a dozing state, and lay with its eyelids but half closed; it moaned when any attempt was made to rouse it; the eyes were unfixed on any external object; the pupils were dilated, yet partially contractile on the influx of light; the pulse was 140.

On withdrawing into an adjoining room, the medical gentleman whom I had the pleasure of meeting, observed, "dropsy in the head has now supervened, and we must administer calomel." I replied, that I took a different view of the case; that it resembled dropsy of the head, indeed, but arose from exhaustion; and that brandy, not calomel, could alone save the patient's life. I referred to the history of the case for sufficient sources of exhaustion, and to facts for the actual occurrence of such cases in practice.

We administered brandy, directing thirty drops to be given every two hours, with barley water in the intervals, and a quarter of a pint of milk twice in the twenty-four hours. The bowels were relieved by magnesia and the warm water injection. This plan of treatment lowered the number of the pulse, and gradually diminished the severity of the other symptoms, and the patient eventually recovered.

Another case is related, where a few leeches were applied for inflammation of the head, and which, instead of affording relief, brought on congestion, lethargy, &c., and proved fatal.

A physician was sent for to visit a child with croup, who prescribed bleeding and blistering, if not calomel: the father asked him if he could prescribe nothing better; he said he could not. "Then I must," said the father, "apply to a physician who can." He sent for Dr. G. Downing, the first graduate of our Reformed School of Medicine, who treated the child on the principle laid down in this work, and it soon recovered.

"A little patient," says a writer, "was greatly reduced by copious and repeated bleeding for croup. There supervened a state of irritability of temper so great, that, when excited, it made every effort to scratch, bite, and beat its attendants. This state of agitation continued until the powers of life were gradually exhausted."

SECTION IX.

BLEEDING IN INFLAMMATION OF THE LUNGS, QUINSY, ST. ANTHONY'S FIRE, ETC

A work has been published on the effects of blood-letting in inflammatory diseases, by Louis, of Paris, one of the most distinguished physicians in France, in which he proves, by notes taken during a number of years' prac-

tice in hospitals at the bed-side of the patient, that blood-letting has an effect on the system entirely different to that generally maintained by medical men. He says: "I have observed, at the hospital of La Pitie, a great number of cases of inflammation of the lungs, St. Anthony's fire, and quinsy; and although I have employed blood-letting to the extent of twenty or twenty-one ounces, and, moreover, to fainting, *yet I have never seen these inflammations arrested in a single case.* Some of the symptoms are even augmented in intensity and extent after the first blood-letting."

A noted surgeon, Granville Sharp Pattison, of this city, professor of anatomy, was lately called to a Mr. Little, labouring under inflammation of the lungs, and bled him to that degree that he fainted. He then gave antimony internally, and applied it in the form of ointment externally. This treatment increased all his symptoms, and his recovery was considered very doubtful, till he discharged the doctor and employed a botanic physician, when he began to improve, and has measurably recovered. With what propriety or truth can such men state that anatomy is the foundation of the healing art? so far from it, that it seems that the bad practice of a physician is just in proportion to his anatomical knowledge, (not necessarily so, however.)

Mr. Carr informs me that he was bled for some trifling disease, and which produced epileptic fits, from which he has never recovered. How evident, therefore, that bleeding is a disease creating practice!

Lord Byron left England to serve in the cause of Grecian liberty. He was taken sick in Greece, and his physicians, against his will, persisted in bleeding him. Day and night they beset him to be bled, until exhausted, when the bard, in an angry tone, exclaimed: "You are, I see, a d—d set of butchers; take away as much blood as you like, but have done with it." We seized the opportunity, says Dr. Milligan, and drew twenty ounces; yet the relief did not correspond to the hopes we had formed. The restlessness and agitation increased, and the patient spoke incoherently. On the 17th the bleeding was twice repeated, says Moore, and appearance of inflammation on the brain was hourly increasing; and on the 19th he expired—and shall I not add, a victim, like General Washington, to learned and scientific quackery.

A short time since a child was taken sick in this city, and one of our most popular doctors was sent for, who first bled it, then ordered leeches to be applied, and to be kept bleeding till the lips turned blue. The effect was, that, instead of curing the child, the treatment either aggravated the complaint or killed it: and so ignorant are the dupes of such imposition and malpractice, that the same tragedy would no doubt be again repeated in the very next case of sickness in that family! Let a physician only keep their confidence, and he may kill them all, and still be reputed "skilful."

Patients who recover after general and copious bleedings have been employed, may attribute their recovery to a mere accidental cause, or to the strength of their constitutions.

Bleeding appears to be the order of the day. The inveterate theoretical bleeder will bleed in the most opposite states of the system: he will bleed to check the circulation; if depressed, he will bleed to restore it, and to increase the heat of the body when it is below a healthy standard; he draws blood to subdue reaction, and to excite it; he calls bleeding a sedative, and again he says it is a stimulant. With such a man bleeding is a *sine qua non;* it is almost food and drink; it is refrigerant in summer and calefacient in winter —a hobby which he rides either rough or smooth shod.

When the question was put to an ancient orator as to what was most

necessary to constitute a good speaker, he replied *action;* when he was asked what was next most important, again he replied *action;* and when the question was reiterated the third time, the third time he replied *action* Were a modern *Sangrado* asked what was most necessary in the treatment of disease, doubtless he would reply, *bleeding;* should the question be repeated, undoubtedly he would repeat the same answer; and should it be reiterated the third, or to the thirtieth time, the same answer would be as often returned, unless, perchance, it should be varied to *leeches*, Calomel, purgatives.

Our modern pathologists, surgeons, and others, think bleeding the *fac totum* in all maladies; it is the ne plus ultra, when drawn in quantities of forty or fifty ounces. Blood-letting, say these authors, is not only the most powerful and important, but the most generally used, of all our remedies Scarcely a case of acute, or, indeed, of chronic, disease occurs in which it does not become necessary to consider the propriety of having recourse to the *lancet* (?!). To what extent blood-letting is carried in our modern age, may be learned from the most standard work on the blood.

I might go on and speak of the effects of the loss of blood in inflammation and every other disease; but the limits of this work will not permit, and I must leave it for others hereafter farther to enlarge upon and to illustrate.

SECTION X.

TREATMENT OF THE EFFECTS OF LOSS OF BLOOD.

It is not my design, in this place, to treat much upon the curative effects of the loss of blood. This part of the subject is reserved for another section of this work. I will, however, speak of the curative effects in general.

1. *Posture.*—When fainting occurs, which is so common in bleeding, the patient should be laid upon the floor, bed, or in a recumbent position, which more readily admits a return of blood to the head and brain.

2. *Stimulants.*—Administer spirits or brandy, or, which is better, ten drops of the spirits of hartshorn in a little spirits of lavender.

3. *Application of Water.*—A small quantity of water may be dashed in the face.

4. *Volatiles.*—Camphorated spirits or hartshorn may be applied to the nostrils and face. If reaction does not take place soon, the feet and surface may be bathed in warm water.

5. All tight bandages should be removed.

6. *Air.*—Few persons should be permitted where the patient lies. The doors or windows should be opened, that there may be a free current of air.

7. When the patient is recovered from fainting, a restorative course of treatment must be instituted. Wine or wine bitters may be given, and a very nutritious diet recommended.

8. *Anodynes.*—Where there is great irritability of the nervous system. exhaustion; delirium, &c., anodynes may be prescribed. The tincture of hyoscyamus has an excellent effect.

9. *Sinapisms.*—Mustard plasters may be applied to the feet and to the nape of the neck.

10. *Laxatives.*—The bowels must be kept regular by aperient or laxative medicines.

11. *Quiet or Repose.*—In most diseases arising from loss of blood, the

person is very susceptible of noise or disturbance of any kind. Quietude and rest, therefore, should be strictly enjoined.

SECTION XI.

CONCLUDING REMARKS

In concluding this chapter on the morbid and dangerous effects of blood-letting, I anticipate the remarks of an objector or inquirer, "Do you, then, reject bleeding in every disease?" In answer to which I have to observe, that ever since I commenced the practice of medicine I have witnessed the effects of bleeding in different diseases. The practice has been so popular, and recommended by such high authority, and been adhered to by physicians for such a great length of time, that I concluded to follow it until I satisfactorily ascertained the effect of it upon the system. At one time I even took a bleeder with me in my visits to my patients, and in some degree followed the footsteps of Dr. Sangrado, and bled almost every one of them. I soon found that I injured, instead of benefited them; and although I discontinued the practice of bleeding so constantly and so indiscriminately, yet I have for years occasionally resorted to it, till more recently I have laid aside my lancet, and it is now rusting in its scabbard. It is true my students sometimes bleed patients who *insist* upon its being done, but this is not in conformity with my practice. I can fulfil *every indication* for which bleeding is practised, by the *substitution of other means more rational, natural, and congenial with the system;* and, therefore, after a most extensive observation and practice at the bed-side of the patient, I must, as an honest man, whatever may be the opinion or practice of others, adopt the following maxim—"SELDOM OR NEVER BLEED."

Since writing the above I have had a number of years' experience in the practice of medicine, and all which confirms me in the belief of the principles here laid down on blood-letting. It is now about ten years since I have bled a patient, except a few times locally; and even those cases, I am now convinced, might have been successfully treated without any abstraction of blood.

Dr. S. states that a surgeon of this city amputated the leg of a coloured man without any kind of necessity, merely to show Dr. W. how to operate.

The Hon. Mark Harris, of Portland, Me., ex-member of congress from one of the eastern states, recently, on a visit to this city, became indisposed in consequence of a rupture. Dr. Gunn was called to him, and Dr. A. Post, who almost immediately commenced a surgical operation; and they had no sooner completed it than the man died. He had been in excellent health previously.

Dr. Valentine Mott recently performed a horrid operation on an elderly lady from New Jersey, for a polypus or tumour on the face or of the nose. After dissecting the skin from one side of the face, he sawed off the upper cheek-bone, &c. As a matter of course, she is now dead, or nearly so.

Is it not as dangerous to employ one of our regular mineral and butchering doctors as it is to jump into the dock, take poison, or to hazard life in any other way? And may we not regard such practice among the same calamities as pestilence, earthquake, or famine?

CHAPTER III.

THE KNIFE, OR ABUSES IN SURGERY.

"What a sarcastic, what a damning catalogue of great operations, performed within these last few years, might a diligent cynic compile for the gratification of the world." JOHNSON.

SECTION I.

OF SURGICAL OPERATIONS IN GENERAL.

THE limits of this work will not permit a full investigation of this part of the subject, or that which relates to abuses in surgery. I shall, however, give an abstract or outline.

Within some years past it has become very fashionable to attempt to cure a great variety of diseases by the knife, or by manual operations; but with what propriety or rationality, I have never yet been able to determine. I cannot reconcile the propriety of it with any indications of nature, physiology, anatomy, observation, or experience. It is true, perhaps, although I have seldom or never seen an instance, that some diseases may be removed by a surgical operation. But this affords no reason why they should be so generally resorted to, for it is well known that diseases for which such operations are performed are otherwise removed, either by nature or by other means.

When we reflect for a moment upon the structure and organs of the different parts of the system, we shall see why so little benefit and so much injury results from operative surgery. Wherever any disease is seated, for which cutting is recommended, we shall see that there is, in general, such an intimate connexion between it and the surrounding healthy parts, that the knife cannot separate between them. It is owing to this that those diseases for which an operation has been performed, so frequently reappear after they have been apparently extirpated.

The morbid and healthy vessels and fluids are so interwoven and connected together, and so freely inosculate with each other, that operations oftener exasperate than cure This is exemplified in tumours of various kinds, the scrofula, white-swelling, cancer, fistula, &c.

Operations are acknowledged by all to be the opprobrium of surgery, and rather a disgrace than credit to the operator. It ought to be the primary object of every practitioner to prevent the use of the knife. But in this day it is certainly not the case. Some of our noted surgeons express the most joyful sensations whenever they can obtain a subject for carving. It appears to be their delight to dissect and cut human flesh, devoid of all sympathy; and there might be some excuse for it, were such operations indispensably necessary; but when it is a fact, (which has been demonstrated in scores and hundreds of cases,) that there is seldom, if ever, any necessity for them, we confess that we feel horror-struck and indignant, that mankind must continue to be tortured, mangled, and quartered for those very diseases which have been so frequently cured by the most safe and mild means.

Dr. Johnson, editor of the Medico-Chirurgical Review, and physician ex-

traordinary to the King of Great Britain, has the following pithy remarks on this subject: "If operations—bloody, cruel operations—are looked on with admiration, it can only be by those who regard plague, pestilence, and famine as beneficial also. No! operations are our opprobrium, our disgrace—not our proper and legitimate boast: the mere operator is little better than a human butcher by rule. There is too great a taste for the knife at present; shame to those who encourage it; wo to those who practise it! unnecessary operations bring discredit on surgery; unsuccessful ones, even when perfectly justifiable, inspire doubt and repugnance to it in the public mind. Patients who see or hear of their relatives or friends submitting to barbarous and frightful maimings, only that they might live for a month or a week, feel no great relish for the knife when its use might bring safety and a cure. What a sarcastic, what a damning catalogue of *great* operations, performed within these last few years, might a diligent cynic compile for the gratification of the world! But we have done, and we trust that these observations may not be without their effect."

In Dr. Gibson on bony tumours, pages 136–7, is the following to the same import:

"Whoever attends an *European Infirmary*, will be struck with the diversity and multiplicity of operations performed upon the most trivial occasions. Will it be credited, when I say that the illustrious founder of American surgery, during a practice, both hospital and private, of thirty years, and more extended than that of any other individual of our country, has hardly ever had occasion to resort to amputation? It may be asked, what became of his patients? I answer, they have been cured by general and local means. Doctor, said a surgeon of Pennsylvania hospital, to a distinguished practitioner of a neighbouring city, what would be done in your town with such a leg? We should cut it off, was his reply. We can *cure* it *here* without, rejoined the other. "In a certain London hospital," says Dr. Gregory, "a patient was under the care of the physicians on account of a very bad leg, which baffled their skill, and appeared to them almost hopeless; they therefore requested a consultation of the surgeons, to examine the leg and to decide what should be done with it. The surgeons accordingly met, examined it, consulted about it, and resolved, *nemine contradicente*, that the leg could not be saved, and ought to be cut off. They cut it off without delay. But, strange to tell, the physicians, at their next visit, on examining the patient, found, to their great astonishment, the supposed hopeless leg as fast to his body as ever it had been.

The puzzle was soon explained. It happened that the man had *two* legs, both of them very bad; one the physicians thought they could save, the other they despaired of. There being but right and wrong, it was not very marvellous that the consultation took the wrong. Both physicians and surgeons, I believe, were a little disconcerted at that *quid pro quo*; and as it was thought rather a strong measure to cut off both of the man's legs, they exerted themselves to the utmost and saved the leg which should have been cut off: so that, after all, the poor man was but one leg out of pocket.

As I was not an eye-witness of this edifying transaction, it is proper to give some notion of the genealogy of the story, which is very short and simple. I have it from a reverend clergyman, who had it from one of the physicians concerned, and who is now one of the most eminent of his profession in London. I know both the clergyman and the physician intimately; I know them both to be men of veracity and men of sense, and I have no doubt that the facts were just as I have stated them.

These remarks may appear, perhaps, irrelative, but I am satisfied of their importance, and shall be gratified if they tend to check the disposition so prevalent among surgeons to use the *knife*, or contribute, in a single instance, to alleviate pain or remove diseases by milder or more appropriate means."

The following cases are related by a physician of this city. They show still farther the fondness of surgeons to perform even unnecessary operations:

"Yesterday, in passing down Delancy-street, my attention was arrested by a number of persons collected together in consequence of an accident which had just occurred to a lad by the name of William Thompson, about twelve years of age. After he had been conveyed to the residence of his mother, No. 91 Delancy-street, I took the liberty of calling and making some inquiry respecting the nature of the accident. I there found Drs. D. L. Rodgers, Bowron Vache, and some half dozen other physicians or medical students, who in a very superficial manner were examining the wound of the boy. It was pronounced a compound fracture of the lower, and a simple fracture of the upper arm. The ends of both bones were seen protruding through a large wound, although the blood circulated freely below it, and the motion of the hand was not lost. The injury had been done, I was informed, by the machinery in a manufactory for cutting glass. All the physicians or students present immediately decided, with the exception of one, the oldest and most experienced, that the arm must be amputated. This physician stated that the wound, though extensive, might be cured. At any rate, he thought an attempt ought to be made to effect it; that there would be no more danger in making a trial than would result from amputation; he quoted for authority Sir Astley Cooper, and spoke of the danger of an operation so soon after the injury. He concluded by asserting that he had cured a wound equally as serious and unfavourable. Although the opinion of this physician was respectfully solicited by the principal surgeon, yet the enmity of the others was so much excited at the opposition he made to the proceedings, that they tried every means, in the most clandestine and disgraceful manner, to rid themselves of his presence. The proposition to heal the wound was not listened to. The physicians began to make preparation to remove the arm, by displaying before the eyes of the unfortunate lad numerous surgical instruments! The scene resembled a number of butchers eager, to shed the blood of a poor animal.

The boy strenuously and perseveringly objected to the operation, and called some around him to prevent it being done. His cries, entreaties, and agonies were truly heart-rending, and convulsed his whole frame. He was firmly held by them, however, till the arm was cut off—not below the elbow, where it ought to have been, as I was forcibly impressed, if at all, but above.

My object in this communication is, to express my conviction (and I judge from common sense and common observation) that *this arm could have been saved*, as intimated by the physician above alluded to. I have seen a wound apparently as bad, if not worse, cured by him, after it had been decided that amputation must be immediately performed. I have no doubt that many limbs are taken off, which, if left to nature and judicious treatment, might be preserved.

A few years ago a person was expelled from the New York alms-house, because he would not consent to have his leg amputated. He succeeded, after three days of great toil and distress, in reaching the city, a distance of only three miles. He then began to prescribe for himself, and in a few

months recovered the use of his legs, and can now walk perfectly well. Ought not these "*stubborn facts*" outweigh any and every theory leading to an opposite practice, however plausible, or founded on authority however high? If there is an improved system of practice, and I have the fullest evidence of the fact, by which we may be cured of our diseases without the loss of our limbs, or without being "quartered and mangled," ought it not to be investigated and patronized by every humane and philanthropic person, however opposed they may be by the *illiberal*, the *interested*, the *envious*, or the *prejudiced*?

These cases are too painful to be contemplated with ordinary patience by any humane reader. The anxiety which we have ourselves witnessed in some *jejune* practitioners of surgery, to flourish the scalpel about the limbs of a maimed patient, for the sole sake of showing off their professional adroitness, has on more than one occasion induced feelings of exquisite and unmentionable anguish.

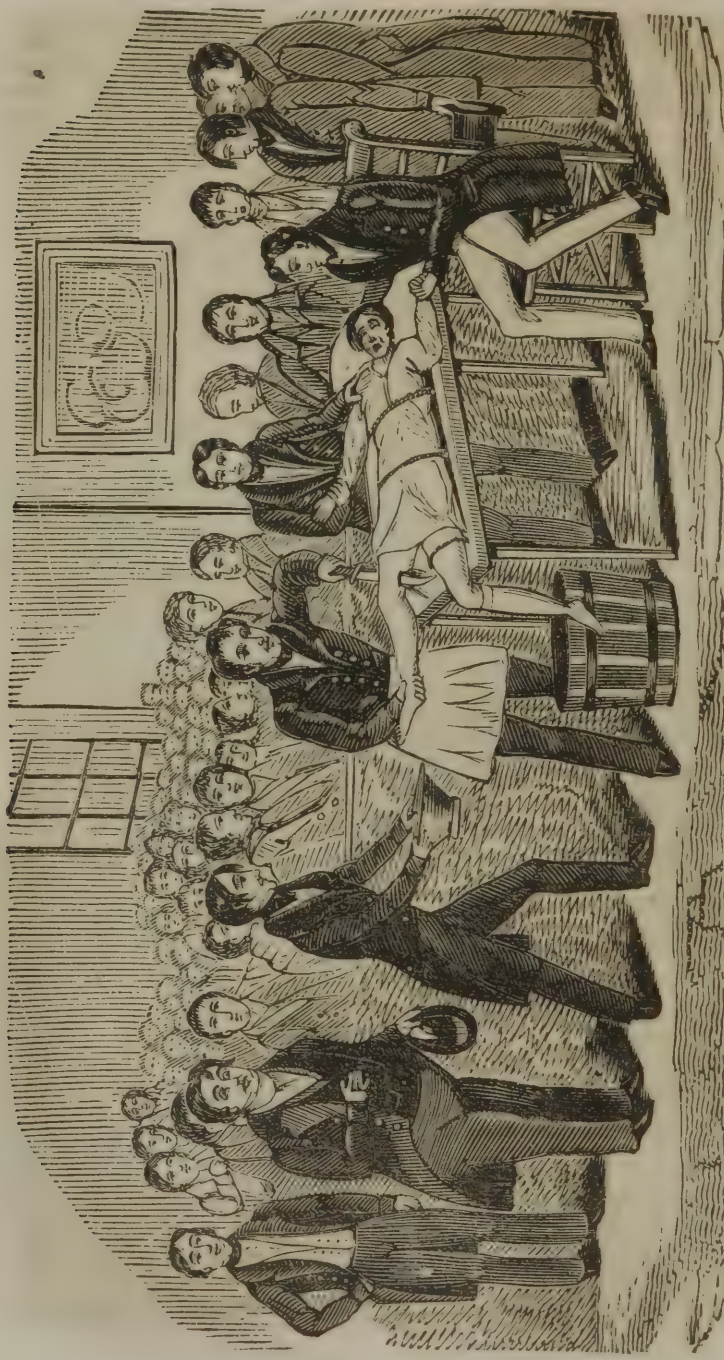
There are thousands of juvenile slaughterers, *secundum artem*, who are always longing for chances to display their *callous philosophy* and *cunning agility*, in slashing off a bruised arm or sawing away a shattered leg, without condescending to wait for any of the efforts of nature.

An instance is within our own recollection somewhat analogous. The circumstances occurred in Massachusetts, four or five years since, and can be proved by the testimony of hundreds. A little girl, about four years of age, while riding in a gig with her parents, fell out of the vehicle, and the wheel immediately passed over one leg and one arm of the child, crushing horribly the bone of the thigh and that of the upper arm. A council of surgeons resolved that the wound was past all remedy, other than immediate amputation; and while preparing for the operation, a noted bone-setter, named Sweet, illiterate, coarse, better acquainted with nature than art, saw the patient and remonstrated, with effect, against the proposed mutilation. The surgeons of course abandoned the sufferer to her fate and retired, pronouncing, however, sentence of death upon her. The bone-smith, who pretended to be nothing more than one of nature's journeymen, bandaged the crushed limbs, without even using the wooden splints or frames, considered so essential by all scientific chirurgeons. Thus nature was left to work itself out of its own predicament; and, by dint of careful, simple, and gentle treatment on the part of her attendants, the little patient in a few weeks was restored to her overjoyed parents, whole and sound, and is at this day one of the most sprightly children of her age, enjoying the free use and original shape of all her limbs. We are by no means inclined to disparage the noble science of surgery; we view it as even the *most* honourable of professions; but we would deprecate that precipitate zeal in imprudent practitioners which, in its earnestness to make exhibitions of skill, loses sight of the grand truth—that art is but nature's auxiliary. In young persons especially, the utmost caution and hesitancy ought to be observed. Such is the practice with all *experienced surgeons*, before applying the cruel instruments, whereby misery and deformity are *for ever entailed* upon the unfortunate sufferer.

From the New York Herald.

The details of an operation, as related in the Morning Herald of 21st July, 1841, are sufficient to sicken the soul at such rash and merciless treatment.

"The next case (represented in the annexed engraving) was an interesting one of white swelling, for which the thigh was to be amputated. The patient was a youth about 15, pale, thin, but calm and firm. One professor



AMPUTATION OF THE THIGH FOR WHITE SWELLING, AT THE DISSECTING-ROOM, STUYVESANT INSTITUTE

felt for the femoral artery, had the leg held up for a few moments to ensure the saving of blood, the compress part of the tourniquet was placed upon the artery, and the leg held by an assistant: the white swelling was frightful. A little wine was given to the lad; he was pale, but resolute; his father supported his head and left hand: a second professor took the long, glittering knife, felt for the bone, thrust in the knife carefully, but rapidly; the boy screamed terribly, the tears ran down the father's cheeks. The first cut from the inside was completed, and the bloody blade of the knife issued from the quivering wound; the blood gushed by the pint; the sight was sickening, the screams were terrific, the operator calm. Again the knife was thrust in under the bone; the terrific screaming was renewed; one or two picked up their hats to leave; scream on scream—and again the bloody blade of the knife issued from the wound, and was laid aside. The flesh quivered, and the boy cried agonizedly, 'Oh father! father! father! Oh mercy! mercy!' The flesh was thrust back with a small piece of wet linen, the divided ends of the quivering muscles were stopped from blood with a sponge, the saw glistened in the hands of the operator, the father turned as pale as death, the boy's eyes fastened on the instrument with glazed agony: grate—crush—once—twice—and the useless limb, from the toes to the centre of the thigh, was quickly dropped into the tub under the table. At this moment the father's eyes closed, his child's hand dropped from his grasp, he reeled from the table, and fell senseless on the floor.

The arteries were taken up, cold compresses only were applied; one or two stitches in the flesh, one or two more screams, and the boy was taken into an adjoining room and laid on a bed. The whole took less time to perform than the details have occupied in writing.

With what eagerness and curiosity these 'cut and slash' proceedings are viewed by the assembled students: but are not scenes like these calculated to give an impetus to the deadly use of the knife? Have they not a tendency to destroy that patient investigation and research into the nature of diseases, requisite to a thorough knowledge of their treatment? Alas! these public displays of surgery are fraught with the most alarming evils. A perseverance in simple remedies is liable to be discarded by the medical student; and when disease has arrived at its most dangerous state, the only remedy deemed to be potent will, perhaps, be to lop off the morbid part—to add another maimed member to the list of cripples created by maltreatment and the *dernier resort* of desperate tyros. When those 'distinguished lights,' Hunter and Abernethy, have designated these operations as 'imperfections' of the medical art, surely their solemn assertions are worthy of serious regard. Surely the 'little stars' of the New York University may hide their 'diminished heads,' devote their precious hours in studying the preservative means of a milder system, and avoid those 'imperfections,' so sincerely deplored by the deepest philosophers and brightest scholars the science of medicine ever called into action." The above operation was performed at the Stuyvesant Institute.

'Tis the sad spot where Mis'ry sheds her tear,
And scenes of blood the human feelings sear.

I will here give the authority of one of the most distinguished surgeons and authors in London, Sir Benjamin Brodie, as related by Wm. Gibson, M.D., Professor of the University of Pennsylvania, in his late work entitled "Rambles in Europe." He says, in walking the rounds of St. George's Hospital, containing upward of four hundred beds, I saw many diseased joints, and could not avoid asking Sir Benjamin if he performed as many amputa-

tions for the relief of such diseases as formerly; to which he replied, "Oh, no—not the twentieth part." "How, then, do you manage?" "By rest, position, splints, and diet!" was the answer.

The following letter of Dr. Brodie to Professor Gibson gives additional testimony against operations:

14 *Saville Row, May 22d*, 1839.

"My dear Sir,

"I beg your acceptance of a copy of the last edition of my Treatise on the Diseases of the Joints. I also send you some pamphlets, which you may, perhaps, find leisure to peruse on your voyage. I hope that my work on the joints has, at all events, contributed to diminish the number of amputations performed in this country, on account of this class of diseases. Certain it is, that many diseased joints were amputated in the earlier part of my professional life, which the London surgeons would not even dream of amputating at the present time; and that in several of the cases recorded in my treatise as having been the subject of amputation formerly, (and to which, by the way, I am indebted for many of my pathological observations,) a cure would now have been obtained by easier means, and without the mutilation of the patients.

"Altogether the proportion of severe operations has of late years become very much diminished in the hospitals of our metropolis, and I attribute this mainly to the improvements that have taken place in our art. Without underrating the importance and value of operative surgery on many occasions, I must say, I could never bring myself to regard it as constituting the glory and pride of our profession. The mutilation of the human body is, at best, but a sorry expedient; severe operations are always attended with more or less of hazard; and I conceive that it is a much greater triumph for science when she teaches us to cure a disease by other means, than when she leads us to the same result by the most skilful and masterly operation.

"I am, dear sir, with great respect, your faithful friend and servant,

B. C. Brodie."

The Count La Sallee, in one of his papers addressed to the academy des arts, at Paris, thus expresses himself in relation to the practice of surgery among the Indians. The paper is dated August 10, 1565.

"In my travels through the wilds of America I visited most of the Indian tribes which populate the regions of the west. I commenced my pilgrimage at the mouth of the St. Lawrence, and ended it at the passes of the Mississippi. A nobler race of beings I never witnessed; and I was surprised when I found that, though unacquainted with any of the sciences, they were masters of the art of surgery. During my travels I found a number of the aborigines who had been wounded and mangled in the wars, but I never found one who was in the least deformed by the fracture of bones and the numerous accidents to which Indian warfare is liable—not a single amputation. I had noticed, in most of the hospitals of Europe, that but few of the inmates who had been confined came out without being lame and deformed; and when I recollected this, I expressed my astonishment to the chiefs of the tribes that the invalids perfectly recovered the use of their limbs, and did not bear any of the marks of previous disaster. To my observations one of the chiefs replied, "you have men to mend limbs, who are taught by men to do so; we obtain our knowledge from the Great Spirit. We are perfect, for our knowledge comes from the clouds; yours comes from man only." I

confess that I was thunder-struck with the reply ; but I could not but admit the justice, accuracy, and pungency of the remark.

The celebrated missionary, John Zimmerman, as early as the year 1620, made a voyage to Patagonia, under the auspices of the Moravian church, and in one of his letters to the Synod, took an elaborate view of that people, from which we make the following extract:

" I was not more surprised than delighted to find among this people men who were practically and theoretically acquainted with surgery, though they were unacquainted with the terms and phrases which are employed by civilized nations. I inquired of them how they became acquainted with the art; their reply was, our 'God forms not his mortals without intelligence, and he has wisely ordained that we should all possess the capacity of supplying our wants. He that formed us endowed us with the necessary knowledge to enable us to heal our wounds and restore our fractured bones.' "

Were I disposed I could proceed and relate hundreds, if not thousands, of the most inhuman, barbarous, bloody, and fatal operations, both in Europe and America ; and that, too, for those very diseases which nature often cures without any assistance from art. It may be that *occasionally* an operation removes a disease. But if so, this is blazoned to the world, and brings great fame to the operator, when perhaps the scores of cases which he has butchered out of the world are kept silent. Indeed I have sometimes thought the more patients a surgeon kills by formidable operations, the more popular he becomes. I never would object to any operation, were I convinced that there was no other alternative; but when I see persons operated upon and destroyed for complaints which I have so frequently cured, if I did not raise my warning voice against such practice, and express my indignation, I should be destitute of the least spark of humanity.

SECTION II.

OF OPERATIONS IN PARTICULAR.

1. *Amputation.*—It is customary to amputate a limb when mortification takes place, but it is directed not to remove it until a line of demarcation is formed between the mortified or dead, and the living or sound flesh ; assigning as a reason, that if it is done the stump will slough or that the disease will return.

Now, I ask, in the name of reason, common sense, and philosophy, where is the propriety or necessity for amputating a limb for mortification, or any other disease, when it has been stopped or arrested. In this case, according to the very directions given or principles laid down, the limb will, if left to nature alone, be saved.

The extract already quoted from Gibson proves that a surgeon who understands the healing art, may practise perhaps all his life-time without cutting off a single limb. How, then, can surgeons in this day reconcile their cutting and carving system with their consciences, or with correct principles of the science of medicine.

It is a very common circumstance for persons to apply to us for the treatment of some disease for which amputation or an operation has been proposed; and I now do not recollect a solitary case in which we have not been successful, where our prescriptions have been followed: and a great share of the

abuse and calumny which has been heaped upon the author of this work, has arisen in consequence of having cured those very diseases for which operations have been proposed and recommended as absolutely necessary. I must, however, here state, that it is alleged that some improvements have taken place within a few years past in operative surgery. A medical gentleman informs me that not one half the limbs are now amputated that were some years ago.

2. *Compound Fractures and Dislocations.*—It has been very customary to amputate for compound fractures and dislocations; but this is seldom, if ever, necessary. The worst cases of which I have any account may be cured; and, indeed, amputations now are not so frequently performed for these accidents as they were some years ago.

Sir Astley Cooper proves conclusively that these accidents can be cured without amputation. Why, then, do other surgeons in this day amputate for them?

But I humbly trust that a new era in medical science will soon dawn upon the world.

3. *White Swelling.*—It is customary to amputate for white swellings. This is truly a cruel, unnecessary, and shocking practice. How must the hearts of parents bleed to see the limb or limbs of their beloved children amputated or cut off for a disease that can be infallibly cured, as I have demonstrated in a number of cases!

4. *Operations for Cancer.*—It is recommended by authors and lecturers, both in Europe and America, to use the knife for cancers in the female breast and other parts of the body. But how this practice has so long prevailed, in face of all the facts on record, I cannot divine. I cannot account for it in any other way, except on the same principle that error always prevails. I know, by a life's time experience, that the method of extirpating cancers with the knife is not attended with success; but, on the contrary, I have found that it aggravates the complaint. I have been often called to treat the disease in all stages, both before and after excision, and, therefore, I consider myself a competent judge; and now have to state that this operation is uncertain, ineffectual, and generally renders the complaint worse, and, therefore, ought to be abandoned, and other means substituted.

Among all the operations performed for cancer of the female breast, I have never known a solitary cure performed. Dr. Alexander Munro, of Edinburgh, states that he has been present at the extirpation of sixty-two cancers of the female breast, and not two of the individuals remained free of the disease two years afterward. Is there, then, any encouragement or any authority for continuing this barbarous practice?

The method that we pursue in the treatment of this disease is altogether better.

Attempts to cut a cancer may be compared to the act of cutting down a tree and leaving the roots to sprout. It grows with renewed vigour.

5. *Fistula.*—A horrid operation is now recommended and performed by surgeons for the cure of this most obstinate and unpleasant disease; but the success of it is very little better than that for cancer. It seldom or never effects a cure. I have had persons apply to me after they had been operated upon a number of times, the disease exasperated, and have entirely cured it without any surgical operation.

The operation consists in passing a bistoury or knife up the sinus or opening, and then cutting it entirely open; after which lint is applied, without any other applications. Now, it requires but a small share of common sense

to perceive that the act of making one common opening with the rectum is not sufficient to cure the disease: it does not eradicate the callus, which constitutes the very essence of it. The method we adopt is, to excite a preternatural discharge, and thus remove the complaint.

I have not yet seen a single case, no matter of how long standing, or how inveterate or deep-seated, provided the general health has not been too much impaired, but I have been enabled to cure; and that, too, where our most popular surgeons have failed. In proof of this, I can refer any person to numerous cases in every part of the city; and to facts of this kind we appeal for the success and merit of our work and system of practice.

6. *Hernia or Rupture.*—When a hernia or rupture becomes apparently irreducible or strangulated, after a few attempts to reduce it, and without waiting long enough to know if it can be reduced, an incision is made down to, and through, the stricture, and the contents of the sac returned. It is possible that there are cases in which this operation may be necessary, but I have never yet found any such. I have reduced the worst case I have ever seen: and when we reflect that this operation often proves fatal, ought we not to substitute a course of treatment which will obviate the necessity of it?

M. Malgaigne, of Paris, has presented to the Royal Academy a very interesting paper on hernia.

The writer first attacks earnestly the position laid down by Pott, "that the operation for hernia is not dangerous in itself;" and which has exercised such a pernicious influence. He says, In order to establish the true chances of the operation, I have selected all the operations of hernia which have been performed in Paris by myself and colleagues during a space of five years and over, from '36 to '41. I have found that in 183 operations there were 114 deaths; as to age, I have found that from 50 to 80 years there were 70 deaths in 97 operations; that is, about three-fourths. I have, adds he, like all other surgeons, paid a fatal tribute to this fatal doctrine. You will find mistakes committed by Percival, Pott, Dupuytren, and Astley Cooper. Now the question naturally arises, how many of these patients fatally operated upon, would have recovered without medical treatment? and again, how many would have been saved by judicious treatment? How shall this be settled?

Some years ago I saw an amiable lady of this city, Mrs. Valentine, apparently destroyed by an operation performed by a popular surgeon, Alexander H. Stevens; under proper treatment, she might have recovered.

7. *Aneurism.*—There are few diseases more painful or dangerous than an aneurism, or a partially ruptured bloodvessel, producing a pulsating tumour; and there are few, if any, in which the knife proves more dangerous or fatal. Tying the artery above the tumour may, when it is on the extremities, effect a cure; but when some great artery is the seat of the disease, an operation almost invariably proves fatal. I have successfully treated an aneurism of the femoral artery after the patient was told that, without an operation, she must inevitably die; and I am confident that if such an operation had been performed, the patient could not have survived it. This operation proves fatal from various causes; first, from irritation; secondly, from inflammation; thirdly, from mortification, and, consequently, hæmorrhage. Out of very numerous operations which I have seen detailed by authors, or which have come under my own observation, (and which I might here insert if I had room,) nearly all proved fatal or exceedingly injurious.

I am of the opinion, from my experience in the treatment of this complaint,

that many more would recover if left entirely to nature, than by a surgical operation.

8. *Trephining.*—There has been much dispute and controversy among surgeons respecting the propriety of trephining for injuries of the head. Some highly extol, while others deprecate it. The surgeon of the hotel Dieu, of Paris, has stated that almost every one who was admitted into the hospital for injuries of the head, and who was trephined, died in consequence, no doubt, in a great measure, of the operation. Even the late Sir Astley Cooper, the oldest and most popular surgeon of London, and who cannot be accused of departing much from common established surgical practice, recommends the operation of trephining to be very rarely performed. He uses, in cases of depression with fracture, simply an elevator to raise the bones. He relates a case in his lectures where some surgeons expressed astonishment that he refused to trephine, and yet the patient did well.

A surgeon told me the other day that he insisted upon trephining a child who had received an injury of the head; but as the mother refused, it was omitted, and the child rapidly recovered. An operation very probably would have killed it. Mr. Abernethy mentions many such cases.

The act of boring one hole in the head to cure another seems to be very irrational and absurd. I have had patients who have received almost every kind of injury of the head, and I have found no difficulty in curing them without the operation of trephining; a single case excepted, and which was hopeless from the commencement. I had one case of fracture with depression of such a character, that I even doubted whether he would recover with or without an operation; he was thrown into convulsions, lethargy, &c., from a wound made in the right parietal bone by a stone. Means were taken to reduce the inflammation, the irritation was allayed by anodynes, and the man recovered without bleeding or trephining. A depression still remains in the skull an eighth of an inch deep. Cases are on record almost without number, where recovery has taken place in a similar manner.

9. *Lithotomy or Operation for the Stone.*—When we reflect upon the number that die from this operation, being about one in five, and the liability to a relapse, even if there was no other means of removing it, it would remain a question, whether a person suffering with the complaint had better submit to the danger and excruciating pain of the knife, or take palliatives and trust the disease to nature.

But it is sometimes cured by medicine; and when it cannot be, it may be cured by the new process adopted in Europe, of perforating and destroying the stone in the bladder, without any cutting whatever.

It would be interesting to relate the vast number of fatal cases which have resulted from the operation of lithotomy. An acquaintance of mine was operated upon for the stone, but when an incision was made into the bladder none was found. A surgeon a short time ago stated that a child was afflicted with a stone in the bladder, and he proposed to cut for it. Some diuretic medicine was given by the father secretly, and the child soon recovered.

10. *Operation for the Cataract.*—I have never yet seen a single case of cataract cured by an operation, but I have seen many eyes injured, if not ruined, by it. Some state that soon after the operation they received some benefit, but the disease soon returned, and was even worse than ever. One writer states that he ruined a hatful of eyes before he could operate with *any kind of success*. He ought to have said that he had ruined a hatful of eyes, and after all could not *cure* a single case by the operation.

A person informed me the other day that he had submitted to an operation

for a cataract, and it not only made the eye worse, but caused inflammation in the eye that was sound, and which endangered the sight of it.

SECTION III.

CONCLUDING REMARKS.

I CANNOT here farther enlarge upon the use and abuse of the knife, but will close the chapter with the remarks of the late Professor Godman on this subject, with some that I made a few years since in reply to an attack made upon our practice by a physician in this city, in the American Lancet.

Are there not gross abuses of the knife in the practice of surgery, and is it not productive of more injury than good?

It is now generally admitted by the most judicious physicians and surgeons, that too many operations are performed—that many have recovered of maladies for which the knife was said to be the only remedy. Again, it is universally known and admitted that many die of capital operations, or are mutilated or crippled for life, who, if left entirely to nature, might have lived comfortably for years. This has occurred in amputations, lithotomy, aneurisms, cancers, tumours, fistulas, injuries of the head, white swellings, hernia, cataract, and other diseases. Numerous facts can be adduced to substantiate this assertion. I do not say there are no cases in which an operation is necessary; but in a vast majority I know, by observation and experience, they can be dispensed with. That celebrated surgeon, Mr. Abernethy, of London, positively declares, every time he commences his lectures, that "it is owing to our ignorance that instruments or operations are necessary in any case."

In discussing the propriety of performing surgical operations, we must take into the account the great uncertainty and hazard there is always attending them. In most cases it is impossible to predict, with any degree of certainty, what will be the issue; whereas *nature* oftentimes, when left entirely to its own resources, removes diseases apparently beyond the reach of art; and if blind reason and art were permitted to interrupt her salutary efforts, the patient would be destroyed.

Remarks of the late Professor Godman on the Knife.—The following judicious discrimination is from the pen of the late Professor Godman, and does honour to his head and heart:

"The difference between a surgeon and a mere operator may be estimated by contrasting them. The *surgeon* inquires into the causes, and removes the consequences of constitutional and local disease; the *operator* inquires into the willingness of his patient to submit, and resorts to the knife. The *surgeon* relies on the restoration of the healthy actions by regimen and medicine; the *operator* relies on himself, and cuts off the diseased part. The *surgeon*, reflecting on the comfort and feelings of his patient, uniformly endeavours to save him from pain and deformity, the *operator* considers his own immediate advantage, and the notoriety he may acquire, regardless of other considerations. The *surgeon* reluctantly decides on the employment of instruments; the *operator* delays no longer than to give the knife a keen edge. The *surgeon* is governed by the principles of the science; the *operator* most generally by the principle of interest: one is distinguished by the number he has saved from mutilation and restored to usefulness; the other by the number of cripples he has successfully made."

"The *surgeon* is an honour to his profession and a benefactor of mankind; the *mere operator* renders the profession odious, and is one of the greates' curses to which mankind among their manifold miseries are exposed."

ANSWER TO AN INQUIRY.

I anticipate the same objection here, in relation to the knife, that I did in the preceding chapter on the use and abuse of the lancet. "Do you, then, reject all operations?" In reply to which I would state, that I have seen the effects of various operations performed in the New York hospital, as well as in private practice. I have carefully noticed the result under different circumstances and for different diseases, and, after the most mature reflection and deliberation upon the subject, as an honest physician, I am under the necessity of adopting the following maxim—"SELDOM OR NEVER OPERATE."

CHAPTER IV.

MIDWIFERY.

SECTION I.

THE abuses and impositions resulting from the present practice of midwifery by physicians, are as serious and reprehensible, and call as loudly for a reformation, as those pointed out under the head of Physic and Surgery: and, notwithstanding the severe animadversions on the subject by many persons for a length of time, the custom still continues.

Females have been made to believe that physicians *only* are *competent* to assist them in the hour of child-birth, and that midwives are *incompetent;* by which this branch of medicine has been very unjustly and improperly wrested from them, and monopolized by the faculty. Did females know the ignorance, the untimely and rash interference with the unwieldy hands of doctors, the exposure, the rash attempts to accomplish delivery, the injury done by bleeding, minerals, ergot, and instruments—I state, did they know all this, the serpentine charm which now unfortunately deludes them would be broken, and they would shrink with disgust and horror at the very thought of employing males in parturition, or child-birth. Nothing but the grossest ignorance leads them to embrace a practice so unnatural and revolting. In nearly every case nature is quite sufficient to expel the child; and where aid is required, females are in every respect calculated to render all the assistance required, except, perhaps, in some rare or extraordinary cases. A very little instruction and experience will enable any sensible female to become proficient in this branch of medicine; and I venture to affirm that her success will be far greater than that of male practitioners: in proof, I refer to the practice of Mrs. Ruth Stebbins, of Westfield, Mass., Mrs. Halsey, of New York, and hundreds of others, whose great success is ample evidence of their skill and competency. Also, Madame Boivin, and Lachapelle, of

France, who have been present at the delivery of more than *forty thousand cases*, nearly all of which terminated favourably, even without aid: and observe, also, the great success of other midwives in Germany, Denmark, and other parts of the world. So stupidly or wilfully blind are many females, that they are ignorant that nature accomplishes the delivery, and that the doctors get the credit and the fee, while the worthy and skilful midwife is pronounced ignorant or incompetent. I cannot see why such a custom, so recent, unnatural, and novel in its character, should have prevailed, and gained such an ascendency, except in the same manner that every other foolish and absurd fashion prevails.

I have practised this branch of medicine ever since I began my profession; but so fully convinced have I been that it is wrong, and belongs to the other sex, that I have abandoned it to its rightful owners, female midwives: and I am, therefore, as anxious to bring about a reformation in this department as in other branches of medicine. I trust that I shall have at least the enlightened portion of the community to sustain me in a cause of such vital importance, both to the moral and physical well-being of the female sex.

In the next section I will give a communication on this subject from a worthy and respectable lady, Mrs. E. Arnold, of Westfield, Mass.

SECTION II.

From the Botanic Medical Reformer.

MIDWIFERY. BY MRS. ELIJAH ARNOLD.

I RECEIVE regularly the "Home Physician," and I hail it as a welcome visiter, for I feel more than ever interested in the subject of "*Medical Reform.*" While the subjects of abolition, temperance, and moral reform have been much agitated, and become quite popular in the community, the subject of medical reform has been much neglected, especially by women; for many, no doubt, think it far above their comprehension, and suitable only for the medical faculty, but I do not so regard it. I believe women are created with minds capable of improvement; they have intellect and reasoning faculties; they, too, unlike Mahomet's doctrine, have souls capable of existing through a never-ending eternity, and of course will be required to render an account of their stewardship on earth; they, too, are commanded, equally with their brethren, to improve their talents, to the honour and glory of God; and if their pilgrimage on earth is passed in vain and trifling amusements, or in heaping up gilded treasures—if they have disregarded the bodies and souls of their fellow-men—how will they answer to an offended God? I believe it is the duty of a Christian woman to do good, and not only do it, but qualify herself for more extensive usefulness.

By this, I do not mean to be foremost in the popular reforms of the age, but take up some branch of duty that has been neglected or passed over with indifference; and what more claims the attention of women at the present day than the subject of medical reform, and a knowledge of the human system generally. We are, indeed, "fearfully and wonderfully made;" and can we think ourselves so much above it as to refuse to study into the workmanship of God? And why should not women be qualified to act as physicians for their own sex? have they not minds capable of im-

provement, hearts to sympathize with the afflicted, and hands to administer to the comforts of the sick? I do not ask that women alone should have this place; I do not desire that they should become fashionable physicians, to deal out *mineral poisons*—but that they should become qualified to be useful members of society, and ready, in any emergency, to administer to their own sex when required.

Another branch of medical reform, and *one* to which I would more particularly call the attention of women, is *Obstetrics*, and upon this subject I can hardly speak without manifesting my indignant feelings that a physician should ever occupy this place. It is contrary to every principle of delicacy and refinement, and disgusting to every feeling of our nature. It is an unheard-of practice in most countries, except in some parts of Europe and enlightened America. It is degrading to our natures, and a reproach to any people who submit to the practice, and is universally reprobated by moral writers. Says the celebrated Dr. Beach, of New York, "the practice is unnecessary, unnatural, and wrong." Many others, justly celebrated writers, might be named, of the same sentiment, but we need not appeal to physicians or moral writers; our own sense of propriety teaches us that we must sacrifice all principle of right, before we submit to the practice. Now, upon this point we shall probably agree that a reform is necessary, and a change must be effected in order to have our practice to correspond with our moral feelings, with reason, and with the revealed will of God. It remains now to inquire in what way this can best be done. So long as women are so ignorant upon this subject, and public sentiment is so much against it, and designing physicians are endeavouring to keep it in their own hands, through self-interest, very little, comparatively, can be accomplished; but let an interest be awakened in the community, light disseminated, and knowledge increased, then we shall clearly perceive that a change is necessary. Let two or three, or more women in every town or village, of piety, talents, learning, and respectability, make a sacrifice, and step forward to become properly qualified to act as midwives, and then let them be suitably instructed, and let those physicians who have honesty and candour enough about them to give up this practice from principle, patronise them, and public sentiment would soon turn in their favour. Let the most respectable women of every town be guarded about whom they employ; let them give no countenance to a physician, but patronise the women thus qualified, and this would soon be instrumental in turning the tide of public sentiment. Let our brethren, Botanic physicians, and editors of Botanic journals throughout the length and breadth of our land, continue to pour a flood of light upon the community, and no doubt but this practice, by the blessings of God, will soon be restored to its original place, where our Creator designed it should be. I appeal to Botanic editors, because apparently they alone dare come out in opposition to public sentiment, to advocate this cause.

This subject must come before the public through the medium of your periodical, and others of a similar kind, because Christian newspapers, and some edited by our own sex, too, have refused to publish well-written communications upon this subject; and even some, who profess to have for their object the advancement of moral reform principles, refuse to take up this branch of the subject, which every investigating mind must know is a branch of moral reform; and how can they expect to exterminate the sin of licentiousness, if they refuse to lay the axe to the root of the tree? The celebrated Dr. Ewell, in speaking of *man* midwifery, after thirty years'

practice, says, "it is the secret history of adultery." I appeal to my brethren and sisters, is not this a fact? If so, let us arise in the power of our might, and exert our influence in this cause of truth. I bless God that our world is being enlightened upon this subject; and though some of our sisters are too delicate to favour this cause, or refuse through self-interest, yet God is raising up brethren and physicians to enlighten the world on this subject, and may they do it in the fear of God. I regret that the Church and the Watchmen are so silent; ought they not to investigate the subject in the fear of God, and exert their influence in its promotion? When will the time arrive when virtue, and purity, and peace shall prevail on earth! —O Lord, hasten the day.

Westfield, Mass., June, 1841.

"I have seldom," says Dr. Ewell, in treating upon this same subject, "felt a more ardent desire to succeed in any undertaking, because I view the present increasing practice, of calling upon men in ordinary births, as a source of serious evils of child-bearing—as an imposition upon the credulity of women, and upon the fears of their husbands—as a means of sacrificing delicacy, and consequently virtue—as a robbery of many of the good common women (midwives) of their employment and support. Truly, it shows as extraordinary a revolution in practice as any afforded by a survey of all the arts." "Should the strangers to the practice inquire if our men have large unwieldy hands—great curiosity about women; should they ask if our women have the requisites for useful services—small hands, good sense of touch, and *patience in attendance*—they will absolutely deny this monstrous perversion of the course of nature."

But so it is; the practice of midwifery, in all our towns and villages, and to a great extent in the country, is now almost exclusively confined to the hands of the physicians, who, by their marvellous tales of the hair-breadth escapes of numerous women to whom they have been called just in time to save life, strike a terror in the mind of the suffering woman, which confirms her in the determination, no matter how repulsive to her delicacy, to employ none but doctors. These tales are told, of course, in presence of the attendants of the woman in labour; and most commonly perhaps the individual whom the doctor has so fortunately rescued from such great peril, was at the same time in the hands of a female midwife, who, however skilful, was unable to render the needful assistance. The frequent repetition of these stories in the presence of the same women, with the affected mystery in which the transaction is enveloped, make a serious impression on their minds, and fill them with the most awful apprehensions; and they, in turn, employ the same individual, feeling themselves safe in the hands of no one else, unless it be some other physician who can tell equally marvellous tales.

"A thousand times," says Dr. Ewell, "you dwell upon the miseries of one sufferer, without thinking upon the millions who happily and healthily pass the period of parturition. Away with your forebodings! Believe the truth, when pregnant, that, in all human probability, you will do perfectly well; that the most ordinary women can render you every needful assistance, without the interference of men midwives. *Their hurry, their spirit for acting, have done the sex more harm than all the injudicious management of midwives, of which they are so fond of talking.* This Dr Denman, Dr. Buchan, and many other really great physicians, have long since remarked."

SECTION III.

TESTIMONY OF DR. J. KING.

Dr. John King, of New Bedford, Mass., writes as follows on the subject of midwifery: "I agree with you, and I insist upon it wherever I go, that this is not the part of a physician's labour. It is not a sickness in reality—but a natural effect, intended by our Creator, and should be solely in the hands of women; yet, owing to prejudice and the custom of society, however much they concur with me in this fact, when the hour arrives, the man is called, and she, whose modesty would at any other time mantle her cheeks with crimson, willingly submits to the laws of custom.

About four-fifths of the female patients whom I attend for falling of the womb and other diseases, have satisfied me beyond a doubt, that the sole cause of their afflictions was the improper interference of their MAN MIDWIFE; and you would not only laugh at the ignorance and stupidity of some of our most celebrated physicians, but would be surprised and disgusted, were I to inform you of the manual operations for dilating the vagina, &c., that the woman might get through labour sooner and with less pain.

I shall continue to decry this unnatural and immodest practice as long as life remains."

I conversed with a person a few days ago, who stated that his wife had been afflicted nearly twenty years with falling of the womb, produced, while living in England, by her doctor during parturition. He was in a great hurry to get through, and took such means to facilitate delivery as thus to injure her.

Females, dare you any longer hazard your health and lives by employing men to attend you instead of females, whose province alone it is to officiate in this branch? Remember, if you do, it is at your peril, and I fear a curse instead of a blessing will attend you. Let the public be aroused to a proper sense of the evils and abuses connected with this subject, and let them adopt proper means for instructing suitable persons in midwifery. Let selfishness and ignorance be sacrificed on the altar of benevolence.

SECTION IV.

STATEMENT OF A LONDON PHYSICIAN.

To show how grossly and wickedly women are sometimes deceived and imposed upon by medical men, I give the following paragraph from the London Practice of Midwifery:

"A patient, after the waters are discharged," says the author, "requires a little management; it is not just to stay with her at the time; and yet it is necessary, if we leave her, to leave her in confidence; therefore we may give her the idea of making provision for whatever may happen in our absence: we may pass our finger up the vagina or opening to the womb, and make a moderate degree of pressure for a few seconds on any part of it, so that she may just feel it, after which we may say to her, 'There, ma'am, I have done something that will be of great use to your labour.' This she

trusts to; and if, when she sends for us, we get there in time, it is well; if later than we should be, we easily satisfy her. (For the doctor knows.) Yes, you know I told you I did something which would be of great service to you in your labour.' If the placenta is not yet come away—'oh, I am quite in time for the after-birth, and that you know is of the greatest consequence in labour;' and if the whole has come away—'we are glad the after-birth is all come away in consequence of what we did before we last left the patient, and the labour terminated just as we intended it should!'"

This farce and deception probably costs the husband five or ten guineas. Do you think, reader, that one of our North American Indian women could be thus cheated and humbugged?

CHAPTER V.

OBSERVATIONS OF DIFFERENT INDIVIDUALS ON THE PRESENT PRACTICE OF MEDICINE.

SECTION I.

1.—REMARKS OF DR. JOHN J. STEELE ON MERCURY, THE LANCET, AND THE KNIFE—BEING A PART OF AN ADDRESS DELIVERED AT THE NEW YORK REFORMED MEDICAL COLLEGE.

"Though there be some who shut their eyes against light and debar truth from their reception, yet, thanks be to Heaven, the mass of the good and the truly wise have ever been ready to receive both, when fairly and honestly presented

In the following lecture truth, honesty, and benevolence shall influence the speaker. He shall only exhibit his own views, founded upon experience, matters of fact, and common observation. He, too, let it be recollected, was early disciplined into the old school of medicine, and for many years used calomel, the lancet, and the knife without compunction or reserve.

Every man who thinks or reflects for a moment upon the frail nature of man, the diseases which afflict him, and the system of practice pursued by modern physicians, must come to the conclusion, that the inordinate use of mercury and other mineral poisons, the abuse of the lancet, and the irrational use of instruments in surgery and midwifery, are fruitful sources of disease and death to thousands. This is an evident fact at first sight. But follow up the subject—call to mind the numerous instances that have occurred in your neighbourhood, of persons who have been poisoned by mercury, killed by bleeding, or butchered into eternity by the knife in surgery, and the forceps in midwifery, and then say honestly what you think of the present system of practice.

An inquisitive people must discover that the old system is both defective and dangerous. What disease can its disciples cure? Examine critically what they prescribe, and you will find their remedies consist of mercury, antimony, lead, bleeding, &c., all of which are disease-creating remedies,

and all of which act in direct opposition to the laws of our animal nature. Is, then, such a course of conduct, in relation to one of the most important objects of human life, to be sanctioned by popular opinion? The people certainly are awaking out of sleep on this all-important subject. The light of reform is spreading far and wide, and a still small voice begins to be heard from one end of our country to the other: *Physicians, you are in error; your indiscriminate use of mercury, the lancet, and the knife are adding to, rather than alleviating, the sum of human misery! Reform! Reform the abuses of the healing art, and endeavour to become a blessing to the human family.* This voice of enlightened public opinion begins to wax louder and louder, and if unheeded by medical men, sentence will soon be passed upon them at the bar of public opinion.

Every one who has given the subject of medicine the least attention has discovered that, first, the common mode of practice is unequal in contending against disease; secondly, that it is the most easy and profitable to the physician who pursues it; and, thirdly, that it is dangerous to the sick. It is unequal, because, upon a close examination, you find that it rarely, if ever, cures a deep-seated or malignant disease, and that most of those who do recover, recover from constitutional vigour. It is profitable, because a lancet and a pound of calomel will not cost two dollars, and the net profits, independent of visits, will exceed one hundred; and, moreover, how easy for a medical dandy to carry his lancet in one vest pocket and his calomel in the other. But it is dangerous. Every man, upon a moment's reflection, must admit the high importance of the blood in the animal economy; and the reasonableness of the supposition, that no more blood is formed in our system than is necessary, and that upon the proper quantity of blood depends the measure of health we enjoy. Now, if it were possible for man to generate too much blood, or that in certain states of diseased excitement the removal of disease depended upon a diminution of the volume of blood, would not the God of nature have provided such an outlet? none, however, exists from the blood, for all natural disease-removing processes are carried on through the medium of the stomach, the bowels, the kidneys, and the skin. Besides, bleeding in every case, both of health and disease, in proportion to the amount taken, destroys the balance of circulation, and robs the system of its most valuable treasure and support; this balance must be restored and this treasure replaced, before a healthful action can be complete in the system.

Again, the old practice is dangerous, because its remedial agents are unnatural mineral poisons. The bad effect of calomel or mercury upon the system is not sufficiently known or admitted. It exerts a most powerful influence upon the liver and other glands, it is one of the most fruitful causes of liver complaints, consumptions, kings-evil, dropsies, dyspepsias, &c., that exist in the present day. Its use is now general as a worm medicine, and it is the champion of modern physicians in the cure of every disease. To prove this, we need only quote the words of a learned professor in one of the old schools, when lecturing to a class of upward of one hundred students: "Give me," says he, "calomel in the one hand and the lancet in the other, and I am prepared to cope with disease in every shape that it may attack the human family." What a world of ignorance is contained in such a declaration! And, oh! what an amount of moral turpitude and crime is contained in such a precept, when delivered and enforced under such circumstances!

I know full well the effects of mercury upon the human system, for I

have tried it in every shape, and for almost every disease, and have uniformly found it attended with risk; and, if pushed to a salivation, absolute consequences of a dangerous character, either open or hidden, were produced. This fact is no secret to the physicians who administer it, for they admit, among themselves and in their writings, that mercury does produce disease of the most disagreeable and dangerous character. Why, then, persist in the use of it? But if they will persist, in the face of all the evidence they have, and in defiance of all moral obligations imposed by the sixth commandment, surely the people cannot be so infatuated as deliberately to swallow down the seeds of certain disease and death. Nay, the mass of them will halt and consider.

The knife is another source of immense mischief to the human family. Every day brings us tidings of some unfortunate man or woman being ushered into eternity through the means of a surgical operation. I could name twenty cases which have occurred within a year, when the persons were in a common degree of health at the time the operations for different purposes were commenced, and all of whom died in less than a week after undergoing such operations. How melancholy would the reflection be, if, from an absolute necessity, physicians were compelled to operate in this manner, and when the fact was known that such operations were generally followed by death. But what different feelings inspire us, when we reflect that most of those operations are undertaken and performed *without any necessity*, and only to exhibit to the world the manual surgical tact of a vapouring, iron-hearted M.D. That in nine cases out of ten, when operations are performed and death ensues, the patient might have been cured or sensibly benefited, we have not the shadow of a doubt. For, as Professor Abernethy says, "It is owing to our ignorance that the knife is used in any case."

Is it asked what will we substitute for mercury and the knife? we answer that, for mineral poisons, we substitute the vegetables that grow in Nature's garden: we have tried them, and we find them abundantly successful. Moreover, we find them of such variety in strength and medicinal qualities, as to answer every indication disease presents, and to accomplish all, and much more than the conjoined use of calomel and the lancet. Diseases which have been given up my mineral practitioners, have been cured by vegetable prescriptions, both here and elsewhere. A vast number of cases denominated surgical, in which deadly operations have been recommended, have been completely cured by the Reformed Practice. Indeed, in no department of God's vast scheme of goodness to man is that goodness so strikingly exhibited as in the arrangements of medicinal plants to restore health and remove obstinate diseases. All that is required of us is, to know the medicinal quality of each plant and the disease it is designed to cure; then, when we are sick, we may put forth our hand and take it as the boon of Heaven.

It becomes our duty to investigate the quality of each plant, from the forest tree down to the humble ivy: and, in the performance of this duty, I trust that we have the prayers of the philanthropist and the patronage of every good man. It is a work of vast importance to the human family: and if we have found substitutes for minerals, the lancet, and the knife, surely the world will not withhold from us that respect or patronage which so great a discovery demands. Some physicians of the old school will jeer, and mock, and lie, and slander, but their efforts to put down our system will be in vain. The mass of the people are on our side; they are our defence, our judges, and rewarders. Besides, the object of our pursuit is, above all

others, calculated to cheer us in our researches and comfort us in our privations; having no less object in view than the redemption of the rising generation from the evils of mineral poison and blood-letting, and our army, navy and other unfortunate fellow-beings from the horrors of the scalpel and amputating knife. Let us go on, then, and do our duty, fearless of all that the enemy can do.

SECTION II.

REMARKS OF DR. ANTHONY HUNN, OF KENTUCKY, ON THE SUBJECT OF REFORM IN MEDICINE.

"I HAVE laid before the public only a few of the many existing facts which press themselves upon the mind of an observing thinker, and must inevitably lead him to the conclusion, that the present medical practice is so far from being beneficial, as even to create a serious doubt whether it be not, in the whole, detrimental and injurious to mankind. This is owing to the want of *truth* in all our system of medical science. A system should consist of just, logical deductions drawn from familiar, known, indubitable, and undoubted *facts*. Instead of this, all our systems are either false conclusions from mere imaginary whims, begged principles, or mere suppositions; or even false conclusions from erroneous principles. All systemisers pretend to build upon facts; but their facts are *pressed* and *whipped* into their service. The doctor first spins his system out of the cobweb of his fancy, and afterward squeezes some facts into forms resembling proofs of it, and very honestly shuts his eyes against all such facts as are at variance with his beloved air castle. He creates distinctions, when in nature all is whole, and forges classifications, when in nature all swims together Thus Boerhaave, Cullen, Brown, Darwin, Staehl, are all blind leaders of the blind; and the young physician, who thinks he has in his notes and books a remedy for every disease, when he comes to the sick-bed, finds all a chaos; no rule will apply: he looks in vain for the vaunted effects of his cure-all nostrums; either forsakes in disgust a practice which may lead him to manslaughter, or from experience chalks himself out some dictionary: This is good for that; or that is good for this; and becomes a *quack*: for practice without system is the very definition of quackery. Another, and not less efficient cause of the falsity of our medical systems is, the prejudiced respect for ancient and modern celebrated *names*. The most important data presented to us by modern improvements in physiology and anatomy (the marrow of the medical science) are bartered away for the *dicta* of Hippocrates, Galen, Boerhaave, Cullen, and Rush; and thus the lancet, or calomel, or cold bath, or opium, or salt of tartar, all in their turn, become *panaceas* (cure-alls) with the accession of every new popular profession; and

'For the king's offence the people die.'

I offer to the public a *new system of medical science*, which I have formed conscientiously clear of all those impediments, and which is confirmed in its salutary effects by the experience of a life-time's practice.

But I anticipate a question which has been put to *Moses*, to *Socrates*, to *Galileo*, to *Columbus*, to every man that has presented the face of a *reformer*, and which green-eyed envy never yet has failed to accompany with the sneer

of detraction: '*Who are you, that you dare to presume to know more than we?*' Free from that cowardly, bastard modesty, which trembles to own its competency before the scorn of malevolence, I frankly answer, as a freeman, that from my sixth year I was dedicated to the sciences by a father rich enough to give three sons besides me a full chance of the highest scientific education that Europe affords. At a riper age I studied for five years, (not for half a year, 'off and on,') in the celebrated academy of Jena, in Saxony, successively, theology, law, and *medicine*. The last, as my predilection, I chose for the employment of my life. I graduated as doctor of medicine and surgery (as my diplomas show) in two universities on the continent, *Jena* and *Erfurt*, profited afterward by visiting the universities of *Erlang*, *Gottingen*, *Keel*, enjoyed the lectures of *Reich*, *Stark*, and of the most eminent physician of the present age, *Hufeland*. Then I embraced the opportunity of the assistance of my mother's relations in *France*, to attend the surgical operations in the *hotel de Dieu*, in Paris, practiced afterward three years in *Amsterdam*, and embarked for America, where I have had for thirty years the amplest of opportunity to effect a reformation in the science of medicine, and of studying the *power of nature* on the sick-bed. Being acquainted with ancient and modern languages, I have read till twelve every night, every author of note, and made extracts; and now I am nearly sixty years of age, and am the very man who offers his services to the sovereign people of America."

SECTION III.

OPINION OF THOMAS JEFFERSON ON THE STATE OF MEDICINE.

I HAVE given the views of some physicians on the present practice of medicine. I will now subjoin those of Mr. Jefferson, who did not belong to the profession, but who, by the by, possessed an extraordinary mind, and who was fully competent to judge correctly upon this subject.

"We know, from what we see and feel, that the animal body is in its organs and functions subject to derangement, inducing pain and tending to its destruction. In this disordered state we observe nature providing for the re-establishment of order, by exciting some salutary evacuation of the morbific matter, or by some other operation which escapes our imperfect senses and researches. She brings on a crisis by stools, vomiting, sweat, urine, expectoration, &c., which for the most part ends in the restoration of healthy action. Experience has taught us also that there are certain substances by which, applied to the living body, internally or externally, we can at will produce the same evacuations, and thus do in a short time what nature would do but slowly, and do effectually what perhaps she would not have strength to accomplish. Where, then, we have seen a disease characterized by specific signs or phenomena, and relieved by a certain *natural* evacuation or process, whenever that disease occurs under the same appearances, we may reasonably count on producing a solution of it, by the use of such substances as we have found, *by experience*, produce the same evacuation or movenent. Thus, fulness of the stomach we can relieve by emetics; diseases of the bowels by purgatives, &c., &c. Here, then, the judicious, the moral, the humane physisian should stop * * * * * But the adventurous physician goes on, and substitutes presumption for knowledge. From the scanty field of what is known, he launches into the boundless regions of what is unknown. He

establishes for his guide some fanciful theory of corpuscular attraction of chemical agency, of mechanical powers, of stimuli, of irritability accumulated or exhausted, of depletion by the lancet, and repletion by mercury or some other ingenious dream which lets him into all nature's secrets at short hand. On the principle which he thus assumes he forms his table of nosology, arrays his diseases into families, and extends his curative treatment, (says he,) by analogy, to all he has thus arbitrarily marshalled together.

I have lived myself to see the disciples of Hoffman, Boerhaave, Staehl, Cullen, and Brown succeed one another like the shifting figures of the magic lantern, and their fancies, like the dresses of the annual doll-babies from Paris, becoming, from their novelty, the vogue of the day, and yielding to the next novelty their ephemeral favours. The patient, treated on the *fashionable* theory, sometimes gets well in spite of the medicine. The medicine, therefore, restored him, and the young doctor receives new courage to proceed in his bold experiments on the lives of his fellow creatures.

I believe we may safely affirm that the *inexperienced* and *presumptuous* band of medical tyros let loose upon the world, *destroys more human life* in one year, than all the Robbinhoods, Cartouches, and Macheaths do in a century.

It is in this part of medicine I wish to see a reform; an abandonment of hypothesis for sober *facts;* the *first* degree of value set on *clinical observation* and the *lowest* on *visionary theories.* I would wish the young practitioner especially, to have deeply impressed on his mind the real limits of his art. * * * * *

The *only* sure foundations of medicine are an intimate knowledge of the human body, and *observation* of the effects of medicinal substances on that. The anatomical and clinical schools, therefore, are those in which the young physician should be formed. If he enters, with innocence, that of the *theory* of medicine, it is scarcely *possible* that he should come out *untainted* with *error.* His mind must be strong, indeed, if, rising above juvenile credulity, he can maintain a wise infidelity against the authority of his instructors and the bewitching delusion of their theories. * * * * * * * * * I hope and believe that it is from this side of the Atlantic that Europe, which has taught us so many other things, will be led into sound principles in this branch of science, the most important of *all* others, being that to which we commit the care of health and life."—*Letter to Dr. Wister*, vol. iv., p. 91.

SECTION IV.

From the Botanic Medical Reformer.

MEDICAL REFORMER, NO. I. BY DR. A. R. PORTER

The present age is truly denominated an age of reform. The people are an investigating people. Everything that appears contrary to Scripture, reason, and true philosophy, is brought up before the ordeal of public examination, to be censured or approved.

Questions important and unimportant, interesting and uninteresting, are continually coming up in the minds of the people. Conventions are assembled; discussions are going on; men collect themselves together in

groups at the corners of our streets; they meet promiscuously in the news-rooms, in the stores, in private domicils, in public halls, in highways, in by-ways, to discuss the prominent topics of the day, and consult upon the most efficient means to promote the happiness and prosperity of mankind. In this way do a portion of the human race occupy a part of their vacant time. And when industriously pursuing their mechanical or professional occupation, each one is thinking for himself, originating new ideas, concocting plans, devising schemes, and arranging and maturing his thoughts, to communicate to his confidential friend, or to develope them in some more extensive circle, to be subjected to a more rigid and scrutinizing examination.

While inquiry is thus going on, and society undergoing a severe investigation, a mass of wickedness is laid open to the view. Humbug and quackery, ignorance, superstition, ecclesiastical domination, church tyranny, professional insolence and empiricism, unbridled libertinism, and innumerable other evils exist to an alarming degree.

No wonder, indeed, when people see the disclosures of iniquity that are daily taking place, no wonder, that they cry out, REFORM! REFORM! For one, I say, let it come: never was it more imperatively needed than at the present time.

The world needs to go through a process of purification, in order to make it what it ought to be, and I shall always feel proud to lend a helping hand to carry on the noble enterprise. But as it is impossible to do everything at once, those which stand out most prominently deserve our immediate attention; and upon such should be unhesitatingly directed the weapons of reform.

Among these conspicuous evils there is one on which I have bestowed no little consideration. It is the present practice of medicine. Medical Reform—that is the question. It is in the common, or regular system of practice, so called, that I desire to see a thorough, radical reform. If I could be fully persuaded in my own mind that the use of poisonous mineral ingredients, such as mercury, antimony, arsenic, and the like, are safe, sure, and efficacious remedies, and did not produce effects deleterious to the human constitution; if I were assured that there were no substitutes to be found in nature's extensive vegetable dispensary more admirably adapted to the nature of disease, and which could not cure without making the last state worse than the first, I certainly would abandon my idea of a reform, and cheerfully submit to the present system, and risk my life and health altogether upon its own merits.

But while I am fully convinced, from observation and experience, that the regular practice of medicine is absolutely imperfect and highly dangerous, and while I am satisfied that the vegetable system of practice, which is now extending itself rapidly over the western portion of our country, is eminently superior to every other with which our land is superabundantly stocked, I cannot too anxiously desire a reform. It is on this subject that I wish the people to be aroused to proper and honourable action.

It is time that this apathy and indifference, which has existed in the minds of the mass of the people on the subject of medicine, and which is totally at variance with its great importance, should be totally removed; for there is surely no art or science of so much consequence to their well-being as that which has for its object the preservation of health and the cure of disease.

As there are but few tried, faithful, sterling advocates (comparatively speaking) of the vegetable system of practice in this country, it may seem

presumptuous to undertake so great an enterprise, while a powerful monopoly, propped up by public opinion, hemmed in by constitutional barriers, combining genius and wit, learning and talent, are bending all their mighty energies against us. But I hope that an intelligent people will not be daunted by this; for the more the reformed practice becomes known, the more the people will appreciate and support it.

The practice of medicine should be divested of all those *technicalities* which the most limited intellect cannot clearly understand. It should be based upon true, scientific, philosophical principles, employing such remedies as will act in perfect harmony with the laws of nature and animal life.

The grand mystery to be understood in the practice of medicine is, not to create disease, but to remove it; and as disease is obstruction, such medicines as will assist nature in removing obstruction are the only remedial agents that can be safely and successfully employed.

Where, then, the question is asked, are these remedial agents to be obtained? Not in the submarine depths of the Alantic or the Pacific, nor in the impenetrable regions of the terraqueous globe; but in the vegetable kingdom, in the little plant that shoots heavenward its spiral boughs, and spreads out its tinsel leaves to receive the drops of the silver dew or the warm beams of the noon-day sun.

In the vegetable kingdom there may be found the elixir of health; there may be found the healing balm. Would to Heaven that the study of this extensive division of natural objects was more generally pursued and appreciated. Because, if it were, and the medicinal properties of plants better understood, disease might be more easily and successfully treated.

In the vegetable kingdom an all-wise Being has deposited such plants and herbs as are congenial to our constitutions, and adapted to the cure of all curable diseases to which human nature is incident. We have no need, then, to resort to the application of poisonous mineral ingredients (such as mercury and the like) in the cure of disease, because they do not answer the purpose of their application: they clog up the system and poison the fountains of life, and make the patient a sickly, wretched being through the remainder of his days. I appeal to the lame, the sick, and the blind, to the toothless and deformed, to the dyspeptic, the hypochondriac, to the individual of scrofulous habits and ulcerated gums, to the rheumatic invalid and broken down constitution, who are the unhappy victims of mercurial empiricism. It is a lamentable fact, that the most active and potent articles used by the faculty as medicines, and upon which they place their principal reliance, are destructive to life and injurious to health, the latter of which they are intended to promote.

But many there are, I know, who will not believe it. Intelligent and well-meaning as they may be, their prejudices have become so deep-rooted in favour of the mineral practice, that it is almost impossible to turn their attention to the work of reform.

There are many, too, who are capable of discriminating between a true and false system of medicine, who are almost prepared to go for a thorough reform, but cannot abandon altogether the use of minerals, because they think that calomel, blue pill, or some other preparation of mercury is indispensably necessary to the cure of diseased liver. But however strongly inclined they may be to this opinion, it is, nevertheless, erroneous. Calomel may exert a potent, powerful action on the liver, and give it mere temporary relief. By its acrid and irritating nature, it arouses it to action, the secretion of bile is increased, the bowels are moved, and the patient feels relieved; but this

relief is of short duration; in a few weeks he finds his liver has become torpid, and even more inactive than before, and he again has recourse to another dose, with the same results as before: and thus he continues to take dose after dose, until the healthy tone of his stomach and bowels is irrecoverably gone, and by and by falls a victim to the combined agency of his original disease and the deadly remedy which he took for the purpose of removing it. In confirmation of what I have said, I will give the opinion of Dr. Barnwell: he says—"Mercury will produce the liver complaint." Dr. Hamilton and Dr. Fies state, "that it will, in some constitutions, lie inert for years, and then burst forth with tremendous violence; and that it destroys the digestive organs." Dr. Hamilton also declares, "that every physician of competent knowledge does know these deadly effects of mercury on the constitution."

I am acquainted with an individual, who has been afflicted with liver complaint for a number of years, who has been in the habit of taking a dose of calomel every time he felt the alarming symptoms, but without any positive cure. And I know another individual, who has had the same disease a much longer time than the former, and equally as formidable, who has entirely cured himself by the use of vegetable medicines.

Of the superiority of vegetable over mineral medicines, I can fully testify from my own individual experience and observation, having witnessed some of the most astonishing cures performed by their application. Of the effects of the latter I speak with pain, living to see a near friend dragging out a miserable life, produced by the administration of poisonous mineral drugs.

In view of the evils of the present system of medicine, a reformation is loudly called for; something more safe and effectual must be had; and I trust that it will go on, until the glaring inconsistencies in the healing art are ferreted out and held up to the indignation of an injured community, and the vegetable system of practice substituted to meet the emergencies of the people.

MEDICAL REFORM, NO. II.

Danvers, Mass., May 17, 1841.

To the Editor:—*Dear Sir:* I am personally unacquainted with you. I know you only by name, as editor of a publication advocating the botanic system of medical practice.

The great interest I feel in this system is a sufficient apology, if any is needed, for addressing you in this manner. I am a poor, humble, unlettered mechanic; by honest, industrious labour I derive a comfortable subsistence, which is all I ask, and all I expect while I am an inhabitant of this earth. Yet I have thoughts, and feelings, and sympathies as well as others of my own species; and why may not I (humble and illiterate as I am) give vent to these thoughts as well as the man of letters, even though they be not conveyed in such classical and euphonious language?

Young as I am, I have seen something of the world, and learned by experience and observation the frailty and imperfection of human nature.

I have seen that selfishness is the governing principle of human nature; and that the generality of mankind are more desirous for their own personal aggrandizement, than for the happiness of those around them. In a word, a monopolizing, aristocratic, selfish spirit pervades the mass of the people There is a lack of congeniality of good feeling toward each other; a manifest

disposition to lampoon and oppose everything that may not suit the taste or please the fancy.

This is peculiarly true in reference to the reform which is now going on in the practice of medicine. The botanic or vegetable system of medical practice, being an improvement on the old or calomel system as I call it, has aroused the opposition of the faculty and the advocates of their system, and caused many falsehoods and bitter observations to be uttered against it. Such conduct is disingenuous; it ought not to be. If the system is founded on error, if it is impracticable, let its opponents show up its errors by fair and manly argument—by clear and logical reasoning—by an appeal to facts; then will the people have tangible evidence of its truth or falsity. To impress upon it the indentations of infamy, humbug, and empiricism is not argument; the very attempt demonstrates to the intelligent mind the utter incapability of overthrowing the object of their malediction. Such a course only strengthens the system, and makes it the more impregnable. Every slanderous blow which they strike rebounds to the destruction of their own darling system. I think my alloeopathic friends are aware of this, for they show less of that disposition to slander and brow-beat, and their attacks are less invidious than formerly.

I think they must see that the botanic practice, as conducted by reformers, is placed upon the immutable basis of truth, and cannot be overthrown by base assertions or fierce denunciations originating from a spirit of enmity.

So far as I have investigated the subject, it meets my approval; and I hesitate not to say it is the only system of practice that is calculated to meet the wants of the great family of man. It is philosophic, it is rational; and, when practically exemplified, is safe, sure, and efficacious.

It is now two years since I have been impressed with the truth of this remark; and I feel more than ever attached to the botanic or vegetable system, since, within the space of time above-mentioned, I have known cures performed under this practice that completely nonplussed the skill of the alloeopathic practitioner.

By the vegetable system I mean that which is practised by the reformed medical society of the United States. I have nothing to do with the Thomsonian steam system. It has done good and it has done evil, but it is too much on the *steam power* for my liking. The foundation is botanic; it has some valuable remedies, and, for aught I know, they are all innocent; but the system is limited; there is a manifest want of judgment, skill, and experience in a majority of those who are its practitioners.

This was a great oversight in the founder of the system, and one prominent reason why it has fallen into such general disrepute. Doubtless you see this as well as myself. How near your views coincide with mine in reference to the two systems I cannot say, never having seen the prospectus of your medical journal; nor have I read but one or two numbers of it since its first appearance, and those were loaned me by my friend Dr. Quimby, who goes altogether on the vegetable or reformed system. In those numbers, which I examined very closely, I was at a loss to know whether you advocate the Thomsonian in its length and breath, vomiting and steaming for anything and everything, kill or cure; or whether you go for the more rational and scientific doctrines taught in Beach's reformed practice.

However, advocate which you may, they contained some excellent articles, from which I received much valuable information. I should really like to subscribe for your publication if I could be assured it advocates the doctrines of the before-mentioned school; and if so, I think, by a little exertion,

a number of subscribers might be obtained in this vicinity, as there is great need of such a work here.

I am, very respectfully, your obedient servant,

ALFRED R. PORTER

LETTER FROM DR. GREER, OF GLASGOW, TO THE PUBLIC.

IN entering upon the important task of criticising the works of the medical profession, my motive is threefold: *First*, so many of the inhabitants of the world as are acquainted with me, either personally or by character, will expect this duty at my hand. *Second*, my conscience, which I cannot with any degree of propriety resist, is night and day exciting me forward, by every allurement of happiness, to accompany the embarking in this glorious cause, and by every degree of unhappiness, if I faintheartedly shrink back into apathy, after being so long as seventeen years using every means in my power, both in and out of the profession, to stir up some more able hand to undertake this of all reforms the most necessary; and, *Third*, my God, whom I incline to serve with all my heart, soul, strength, and mind, says, (Exodus xx.,) "Thou shalt not kill." Hence, if I suffer any false system to oppress the human family, and countenance the same, and do not lift up my voice against it, He will rank me as a murderer, and punish me accordingly. See the 27th and 28th chapters of Deuteronomy: read also the 25th chapter of Matthew, where every one of us is called upon not to hide our talents, be they ever so few or weak; and hence I contend that, if I possess only one talent as a qualification to eradicate only one error of medical practice, or establish only one truth of medical theory, and do not make proper use of that talent, I am as culpable as if I had five talents rolled in a napkin. Many are the arguments in favour of my attempting to reform the medical profession; one of which is, that no professional man, so far as I am acquainted, is engaged in this cause. It is true there is scarcely a popular character belonging to the profession but can tell us he is anxious to see his profession reformed; and I must admit that a great many well-meaning zealots are reforming it in their own way, with all the talents they possess; but this reform is analogous to that of plastering and repairing an old zigzag reclining edifice —every cast and sketch of the trowel and brush to beautify, and every prop to uphold it, only tends to aggravate the danger of the fabric. Review, my rational readers, the medical journals, and contrast them with your own common sense, and you will perceive not one sentence of radical reform in any of them, otherwise than that of their technical garnish and literature; and in this itself they are, even in this advanced stage of intellect's march, lamentably deficient. Were the errors of the profession confined to its letter, although the letter itself killeth some, yet I would not urge so incessantly for its radical reform. But when its principles are wrong; when we perceive it is built on the sand, it is high time for us to fly from the danger. Some systematic short-sighted creatures may ask, how do I know that the medical profession is built on the sand? Willing to become all things to all inquirers after truth, I hesitate not to inform the inquirer in a word thus: Men, women, and children are prematurely launched into eternity, in ratio as the medical profession is cultivated in any land, BECAUSE THEY COUNTERACT INSTEAD OF ASSISTING NATURE; and hence arises the question in many reflecting minds—whether the medical profession is not, on the whole, a CURSE instead of a BLESSING?

COMPARISON.

In a letter from A. C. Becker, dated Hamburgh, Germany, 1841, to Dr Vanderburgh, of this city, it is stated that Dr. Muhlenbein, in Brunswick, last year celebrated the fiftieth anniversary of his medical practice. For thirty-three years he practised upon the old mineral and bleeding system, and became very distinguished in his profession, acquiring not only a very handsome fortune, but honours too, and was raised by his *sovereign* to the dignity of body physician, was knighted, and appointed medical counsellor. In 1822, having attained this eminence, and, to use his own words, having convinced himself of the fallacy and insufficiency of the old system, he soon discovered, upon diligent study and experiments upon his patients, the superiority of the new system. Since then he has practised for seventeen years with brilliant success. According to his own statement, among his patients under the *old practice* the mortality was *six per cent.*, and under the *improved* treatment only *one per cent.*

SECTION V.

REMARKS OF EMINENT PHYSICIANS AND OTHERS, ON THE PRACTICE OF MEDICINE.

What names, we would ask, continue to survive the oblivious tendency of time? The detailers and chroniclers of *facts*, not *opinions;* the latter have sunk into the abyss of forgetfulness, and truth alone swims over the extent of ages.—*Cowan.*

An undue attachment to great names: *Hippocrates*, *Galen*, *Araeteus* among the ancients, Boerhaave, Cullen, Brown, Broussais among the moderns, have all in their turns established a despotism in medicine, by the popularity of their names, which has imposed a restraint upon free inquiry, and thereby checked the progress of medicine, particularly in the ages and countries in which they have lived. Also an undue attachment to unsuccessful but fashionable modes of practice.—*Rush.*

Conferring exclusive privileges upon bodies of physicians, and forbidding men of equal talents and knowledge, under severe penalties, from practising medicine within certain districts of cities and countries. Such institutions, however, sanctioned by ancient charters and names, are the bastiles of our science.—*ib.*

Also the refusal in universities to tolerate any opinions in the private or public exercise of candidates for degrees in medicine which are not taught nor believed by their professors, thus restraining a spirit of inquiry in that period of life which is most distinguished for ardour and invention in our science. It was from a view of the prevalence of this conduct that Dr. Adam Smith has called universities the dull repositories of exploded opinions.—*ib.*

Boerhaave calls the physician a fortunate man, if positively he does not injure his patient.

Reil, in speaking of modern practice, says: "I have long enough been tossed on the sea of unfounded hypothesis, to feel convinced that absolute darkness prevails in the medical practice, which cannot be dispelled by assertions, but only by experiments and experience."

There is among medical men, even as to the treatment of the simplest malady, a constant controversy of opinion, which has no other tendency but to confuse the mind.

The ingenious Professor Hartmann, from Vienna, says, on the theory of diseases or general pathology:

"Through all these gradations of developement, the theory of diseases and medicines is now arrived at its present position, whence, from the highest point of theoretical speculation, physicians are now falling into the deepest abyss of empiricy, although men are not wanting who, without regard to their private interest, generously publish their observations and the result of their experience for the benefit of pathology, seeking not only to give form, but also substance and organic connexion to the treatment by the bed of the sick. But taking the general run of practitioners, we can convince ourselves that the most of them exercise nothing but the rudest empiricy under the cloak of science."

"When it is farther considered," says Sir Gilbert Blane, "what a mass of credulity and error has actually accumulated in medicine, from the presumptuous attempt to grasp at obscure objects, and to make hasty and dangerous application of them to practice—when we cast our eyes upon our shelves, loaded with volumes, few of them containing any genuine profitable knowledge, the greater part of them composed chiefly either nugatory, erroneous, inapplicable, or mischievous, in which the dear bought grain is to be sought in the bushel of chaff—may it not be questioned whether such researches have not tended more to retard and corrupt, than to advance and improve practical medicine?"

"Girtanner," says our *materia medica*, "is a mere collection of fallacious observations; there are in it some correct ones, founded upon experience; but who would waste time in seeking for a few particles of gold in that immense rubbish, collected so many centuries since?"

Hoffman's Opinion.—Few are the remedies whose virtues and operations are certain; many are those which are *doubtful*, *suspicious*, *fallacious*, *false*.

"In mixing together," says Dr. Luther, "so many different kinds of drugs, physicians consider the stomach a *general post-office*, where all the drugs arrive at once, and are thence despatched each to its proper destination—one to the nerves, another to the circulation, another to the lungs, another to the brain, &c."

"Medical prescriptions," says Dr. Buchan, "are written in Latin; this practice is not only ridiculous, but is likewise dangerous. However capable physicians may be of writing Latin, I am certain apothecaries are not in condition to read it, and that dangerous mistakes in consequence of this may often happen. But suppose the apothecary ever so capable of reading the physician's prescriptions, he is generally otherwise employed, and the business of making up prescriptions is left entirely to the apprentice. By this means the greatest man in the kingdom, even when he employs a first-rate physician, in reality trusts his life into the hands of an idle boy, who has not only the chance of being very ignorant, but likewise giddy and careless.

Sir Gilbert Blane.—In many cases patients get well in spite of the means employed; and sometimes, when the practitioner fancies he has made a great cure, we may fairly assume the patient to have had a happy escape.

"I know very well," says an old practitioner, "that perhaps more than seven-tenths of mankind die, not from disease, but from the unsuitableness and excess of medicine."

Several circumstances, indeed, connected with the science of medicine have retarded its improvement, and given a plausibility to this charge of uncertainty; and none more than the different theories which have been advanced in explanation of the phenomena of the animal system in health and disease.

Scraps from Krueger Hansen, a Physician of the Old School.—When the regular functions of the intestinal canal are disturbed by physicians with their use of the lancet, leeches, calomel, salts, &c., these gentlemen assum the character of masters in the art of healing. They are not unlike the monarch who, while he silences the plaintive voices of his subjects with grape shot, is, in fact, the destroying angel of mankind. In consequence of this antiphlogistic treatment, the activity in the secretory and assimilative functions is suddenly checked, which either causes prolongation of the disease, a protracted convalescence, or the conversion of the inflammatory into a nervous fever. Instead of a resolution of the inflammation in the affected organ, a suppuration, or even mortification, is produced. If the fever is accompanied by eruptions of the skin, a repulsion is to be feared, attended by other and more dangerous disorders. It is the victims of such treatment which crowd our mineral springs or watering-places. Hence, too, the lamentations about the increasing decrepitude of the human race in *highly civilized life*. If these consequences do not follow in every instance from such a despotical antiphlogistic treatment, it is no argument against my assertion. Many individuals are blessed from their birth with such a powerful constitution, that they are able to resist the worst kind of medical treatment. But let us remember, that it is not every soldier who is struck in battle by a bullet that is killed.

The following apologue, says D'Alembert, made by a physician, a man of wit and of philosophy, represents very well the state of that science: "Nature," says he, "is fighting with disease. A blind man armed with a club, that is, the physician, comes to settle the difference. He first tries to make peace. When he cannot accomplish this, he lifts his club and strikes at random. If he strikes the disease, he kills it—if he strikes nature, he slays her." An eminent physician, continues the same writer, renouncing a practice which he had exercised for thirty years, said, "I am wearied of guessing."

Dr. L. M. Whiting, of Massachusetts, declares that "Cullen knew nothing, or next to nothing, about the organs in their physiological condition; much less did he know of their condition in a pathological state. From him, therefore, we get no more light on the grand question, what constitutes disease? than we do from old Hippocrates, Galen, Boerhaave, Brown, Darwin, and all, indeed, who either preceded or followed him, until within the last half century, and that amounts to just nothing at all that is satisfactory to the inquiring mind." He farther affirms both the materia medica and therapeutics to be a perfect chaos.

Thatcher declares, "Far, indeed, beneath the standard of perfection, it (medical science) is fraught with deficiencies, and altogether inadequate to our desires."

Macintosh says, in reference to inflammation, "It must be confessed that there is much undiscovered. Physiologists have to settle several disputed points in the doctrine of physiology, and anatomists have to discover a great deal regarding the anatomy and physiology of the nervous system, before pathology can be expected to advance in any remarkable degree."

He also sarcastically inquires, "Who knows anything of the cause of disease?"

"The science of medicine," observes Dr. Good, "has been cultivated for

more than two thousand years. The most devoted industry and the greatest talents have been exercised upon this subject; yet upon no subject has the wild spirit of imagination been more widely displayed than in the history of medicine." He adds, "We know nothing of the cause of disease."

"To harmonize the contrarieties of medical doctrines," exclaims Professor Chapman, "is indeed a task as impracticable as to arrange the fleeting vapours around us, or to reconcile the fixed and repulsive antipathies of nature."

"The whole art of medicine," says Sir Anthony Carlisle, "was founded in conjecture and improved by murder."

"It is so impossible," observes Dr. Leutaud, "to separate the useful from the trivial, that it were better to reject it all."

"I am sick," exclaims Professor Waterhouse, "of learned quackery."

"There must," declares Professor Jackson, of Philadelphia, "be a medical reform."

There are doubtless great and important truths yet to be discovered as it regards the nature and cause of human suffering; and when the facts are fully developed, the world will be astonished at the simplicity of the truth, and great men will wonder why such discoveries were not sooner made.

Remark of Napoleon to his physician when pressed to take more mercury: "Your disgusting preparations are good for nothing. Medicine is a collection of blind prescriptions, which destroy the poor, sometimes succeed with the rich, but whose whole results are more injurious than useful to humanity."

I met one of our old school physicians to-day, Dr. J. Rodgers, and in the course of our conversation he remarked that he had practised sixteen years, but did not now give half as much medicine as formerly, and he had changed his treatment. Now, for inflammation of the lungs, &c., he resorted to simples. He administered the syrup of Ipecacuanha, and bathed the chest with hartshorn, which proved very successful. He farther added, that he was for reform.

A few minutes previous to this I met another physician of the old school, Dr. Robson, a man of good judgment and much experience, and quite popular. He informed me that he disapproved of active medicines. He farther stated that he was called a few days since to a considerable distance in the country to see a patient, and her physicians were dosing her with various kinds of drugs, such as arsenic, quinine, and other deleterious agents. He ordered the whole to be discontinued. Another distinguished physician, a friend of his, he stated, was of the same opinion about severe treatment.

Some time ago, in an interview with another practising physician in this city, Dr. Nichols, he remarked to me thus: "Your work has led me to change my practice;" or similar language; "I do not," said he, "bleed half so much as I did, nor give half so much mercury." Thus, happily for the community, many physicians are adopting an improved system of medicine. They begin to believe with Dr. Jackson, of Philadelphia, who once stated, "*except we adopt the reformed system, we shall lose our practice.*"

CONCLUDING REMARKS.

After preparing the preceding chapters on the principles laid down in this work, I observed to a physician, who, by the by, is a graduate of the old

school, and whose medical sentiments are in union with mine, that the principles here maintained are so plain and clear, and yet so simple, that every person must see their consistency and the truth of them. Does it not, I added, appear exceedingly plain and clear to you? He replied in the affirmative, as he had many times before, in expressing his opinions of them, often asserting that they would stand the minutest investigation; that it was impossible to overthrow or subvert them; yet at the same time there would be some physicians, who, in face of all the light and truth exhibited, would cavil, reject, and oppose. If they admit that these principles are correct, added he, they will *bleed to equalize the circulation*, and give *mercury as indications of cure*. In reply to this I observed, that for such there was no remedy. If there is not a *principle of honesty, uprightness, and integrity in them, sufficient to receive the truth, it would be as useless to attempt to convince them as to cause vegetation to grow upon a rock, or to give medicine to a dead man to raise him to life.*

CHAPTER VI.

"PRINCIPLES, NOT RECIPES."

NATURE, CAUSES, AND TREATMENT OF DISEASES IN GENERAL.

SECTION I.

THE pathology or doctrine of diseases in general has been a subject of controversy in all ages of the world. A thousand different causes have been assigned for disease, and as many different modes of cure. Nor is the question at this day settled, or any better understood. We shall not here take up time, nor discuss this subject to refute either the ancient or modern doctrines maintained, any farther than we conceive they interfere with correct medical practice.

Theory and speculation are harmless, while they do not lead to any pernicious course of treatment. But when they lead to erroneous practice, it becomes necessary to refute them.

We shall now inquire into the pathology or nature of disease, and lay down such principles as will lead to a judicious mode of treatment. In prosecuting this inquiry, no elaborate researches are deemed necessary. We have only to follow the simple path of truth, or reason and nature.

The Excretions the only outlets of Disease.—The author of our existence has wisely established certain laws in the animal economy, to guard and protect it against the inroads of disease, and, when formed, to remove it. By these laws we understand an inherent power of the system to throw off any and every thing which is foreign or injurious, or such a process as brings about a healthy action on a diseased system. Let us now inquire in what manner this is performed. A little attention to the system shows us that there are certain outlets or excretions of the system, designed especially

to carry off everything retained which is incompatible with health. When these excretions perform their offices, a person may be said to be well; but when they cease to act, or act imperfectly, morbific matter is retained, and derangement follows, which causes irritation, and, if not removed by the secretions, inflammation and suppuration ensue.

I shall here briefly treat upon these several excretions, show their offices, and the consequences arising from their obstruction.

1. *The skin.*—The whole body is covered and lined with this membrane, through which there are innumerable pores or openings destined to carry off everything which is not salutary or compatible with a healthy state of the system. The fluid which thus passes off is distinguished into sensible and insensible perspiration. By looking at any part of the body in the summer season with a microscope, vapour or steam may be seen to rise like a fountain, which, coming in contact with the atmosphere, becomes condensed, and falls down in the form of drops, which we term sweat or perspiration. When this is kept up, and continued, the blood is pure, being separated in this manner from every impurity. But when this perspiration becomes checked by cold, the humours engendered in the system are retained, carried into the circulation, settle upon some organ that is most predisposed to disease, and become a source of irritation. Every day's observation convinces us that the moment the pores become in any degree closed, a universal derangement succeeds: a sensation is felt in that part where such retained perspirable matter is thrown, as if a needle or some foreign substance was piercing it. This may be said to be the proximate cause of irritation.

It may be translated to the lungs, brain, kidneys, and other organs, causing inflammation and pain; or it may remain in the blood, and cause fever. This fact is demonstrated by the phenomena of eruptive disease, small-pox, measles, &c. The infection or contagion is taken into the blood through the medium of the lungs, and as soon as it becomes sufficiently impregnated with the specific humour or virus, nature is aroused, and makes a powerful effort or struggle to expel it from the system. As soon as she accomplishes this object, the poison in these eruptive complaints is thrown copiously to the surface, and appears in the form of vesicles or eruptions; and when they are thus expelled the fever immediately subsides, but will reappear, if, from debility or other causes, the poison or humours are absorbed. It is the case also in hectic fever, as almost every one knows. Matter from the lungs, or an ulcer, is taken into the circulation, and causes irritation and febrile excitement, and it is also proved from the termination of fever by sweat or perspiration, and also by fever sores. These facts reduce it to a mathematical precision, and render the subject so simple and plain, that it is really a matter of profound astonishment that any one the least acquainted with fever should be ignorant of its nature, cause, and cure, as well as that of other diseases.

No doubt a preternatural accumulation of blood to such parts may serve as an auxiliary source of irritation; but, from various experiments, it may be shown that an accumulation of blood alone to any particular organ is not sufficient to account for all the phenomena of disease: but this subject will be farther illustrated in the next chapter. It is also well known that fevers, inflammation, and a variety of other complaints immediately follow a check of perspiration.

Sanctorius proved that two-thirds of the fluids taken into the system are discharged by the skin, which shows the danger that must arise when such

fluids are retained. The whole external skin of the human body is in some measure a breathing organ, and is continually exhaling a vapour loaded with various excrementitious matter, and held in an aeriform state by the heat which passes with it from the body. This evacuation, if checked, so overtaxes other excretory organs as to produce disease; and, if retained on the surface and returned through the absorbents into the circulation, acts as a poison in the system. Frequent, if not daily, ablution or washing is necessary to preserve, in a healthy state, an organ of such great importance to the animal economy.

The perspirable matter thus thrown to the surface contains carbonic acid gas, and may be the exciting cause of irritation, fever, or other diseases. Every person the least acquainted with physiology, must perceive that a departure from health must follow their obstruction.

2. *The Bowels or Intestines.*—The bowels or intestines are also designed by nature to carry off much that is noxious or injurious to the system, and which does not serve the purposes of health or nutrition. Hence the diseases that arise from their long constipation. It cannot otherwise be but that such a great quantity of extraneous and feculent matter lodged in the body, and perhaps absorbed, must disorder it. The effluvia arising from the operation of physic is an evidence of the deleterious nature of retained alvine discharges.

Nature, therefore, expels disease very frequently by the intestines.

3. *The Kidneys.*—From the blood is secreted the urine through the medium of the kidneys, and which is another excretion designed to rid the system of something extraneous, foreign, or morbific. When this excretion is checked, or if it does not duly perform its office, certain noxious matters are retained and mixed with the circulating fluid, and prove another source of morbid derangement, such as dropsy, inflammation of the kidneys, and how many other complaints it is difficult to decide. That diseases are carried off by a copious discharge of urine, every physician knows. The effects which arise from the suppression of urine point out the purpose for which it is designed.

4. *The Stomach.*—The stomach is another organ by which nature expels morbific agents. When violence has been done by overloading it, or when anything poisonous or dangerous has been received, or when any contaminated fluid is poured into it, or when it becomes unhealthy, or diseased from any cause whatever, the peristaltic or regular motion of it is inverted, *vomiting* commences, and its contents are discharged, its tone restored, and health follows. Thus we see that this organ is designed to eliminate deleterious agents, and constitutes, therefore, an important excretion.

5. *The Lungs.*—The lungs are another organ which serves the purpose of secreting from the blood offensive agents. They not only throw off carbonic acid gas, but likewise mucus; and when they become diseased, more especially, they cast off pus, which, if retained, would cause suffocation. Hence we see in pulmonary diseases an effort of nature to effect a cure through the medium of this organ.

Inasmuch, then, as health depends upon each and all of these performing their respective offices, it follows, that when any one becomes torpid, or ceases to perform its duties, that morbid excitement is the consequence; and this shows, in a most striking light, the proximate cause of most diseases at least; being nothing more or less than the retention in the system of morbific perspirable matter, producing irritation, morbid action, and a deviation from health. These humours are no doubt taken into the system

through the medium of the air, food, or drink. The air breathed is returned loaded with watery vapour, which is calculated to amount to nearly twenty ounces a day, from which we learn the injurious effects arising from its obstruction.

Although the symptoms of complaints in general are very different, yet this is not owing to the exciting cause, (this being similar,) but to the peculiar structure, or the tissue of the organ which is the seat of the disease.

I have just seen a French work which corroborates these views: the author says, "If this fluid (meaning perspirable matter) should be stopped or considerably lessened, and thereby be transferred to any inward part, it must occasion some dangerous complaint. In fact, this is one of the most frequent causes of disease."

SECTION II.

OF THE EFFORTS OF NATURE TO REMOVE DISEASES.

Many authors, particularly the ancients, wrote much on the powers of nature to remove diseases. It was usually called *vis mediatrix naturæ*, or a certain principle inherent in the system, to expel from it everything injurious, foreign, or extraneous. Some have denied that such an effort exists, while others admit it, and term it reaction, which may be considered an appropriate term. That it does exist must be evident to every person the least acquainted with the animal economy. A writer in England, by the name of Townsend, in his Guide to Health, has the following remarks on this subject:

"The efforts of nature to relieve herself have, in all ages, exercised the attention of speculative minds. It is not my intention here to introduce the *Archæus* of Van Helmont to the student; but I shall state some facts, which will give him an idea of those efforts which nature can exert for warding off approaching evil, for removing whatever disturbs her economy or functions, and for repairing any injury the system has received.

When cantharides, spread on a plaster, are applied to the surface of the body, they first excite a genial warmth, with *inflammation* of the skin. A sense of burning follows, and nature, distressed, goes instantly to work, separates the cuticle to form a bag, interposes serum between the nerves and the offensive matter, then prepares another cuticle, that, when the former, with the adhering substance, shall fall off, the nervous papillæ may be again provided with a covering.

If a grain of sand falls into the eye, tears flow in great abundance to float it off, that it may not mechanically injure that delicate and most irritable organ.

The same reasoning will apply to the operation of emetics and cathartics; for not only is the peristaltic motion either greatly quickened or inverted, according to the urgency of the distress, but both the mucous glands and the exhalent arteries pour forth their fluids in abundance, to wash away the matter that chemically, or even mechanically, offends.

When a thorn is lodged in some irritable part, the first suggestion of the mind is by the fingers, or by the assistance of the nails, to extract that thorn. But it is perhaps beyond our reach.

The design of nature, in the consequent *inflammation*, is to produce suppuration, and thereby to remove the thorn.

Should this effort be effectual, she next proceeds to the granulation of new flesh. The arteries and the veins, the lymphatics and the nerves, extend themselves, unite, and renew their communication, and, without the assistance of a surgeon, nature effects a cure.

Supposing her efforts to float off the offending matter, whatever it may be, should be insufficient after the suppuration is complete, she then proceeds to surround it with a wall; a hard and insensible callus is produced; or, in the language of surgery, a *fistula* is formed, and here, as I apprehend, her efforts cease.

In case of pleuritic *inflammation*, nature pours forth coagulating lymph, and, without the physician's aid, forms a new membrane, supplied, like the renovating flesh already mentioned, with arteries, veins, lymphatics, nerves, and thereby preserves the substance of the lungs from injury.

Van Swieten makes mention of cases in which calculi in the gall-bladder, being too large for the common duct, had, after producing inflammation, adhesion, and suppuration, found their way by fistulous ulcers to the external surface of the body, and thus effected their escape. Comment. § 950.

Among the most astonishing efforts of nature to relieve herself are those exerted in some cases of *extra uterine conception*. For when a child has been lodged within the cavity of the abdomen, from which it cannot be extracted in the usual way, nature, by *inflammation*, usually forms adhesion, and in process of time an abscess, so as to eject the fœtus either through the teguments of the abdomen or by the rectum; and this frequently without considerable injury to the mother's health.

Yet more astonishing are her resources in cases of *necrosis*. For supposing some portion of a bone (for example, of the tibia) to be deprived of animation; this she envelopes with new bone, united at each extremity with the fibres of the living bone. Here it proves a stimulus, and calls forth renewed efforts of the vital principle. *Inflammation* is produced; suppuration follows; fistulous openings are formed in the new bones, and the dead portions, if not extracted by the surgeon, are dissolved by the pus and floated off.

Thus nature in almost innumerable cases, even without assistance, is able to effect a cure.

I have already mentioned, in cases of *inflammation*, the efforts to relieve herself by resolution and by suppuration; but when the vital energy in a part has been totally exhausted, and *sphacelus* ensues, she has still one expedient left, and this frequently effects a cure. Fresh *inflammation* is excited, and makes a separation between the living and the dead. The part deprived of animation is cast off by sloughing; a kindly suppuration follows; and granulation with a new cuticle completes the cure."

We see from these remarks, as well as by what passes in the system daily, that the author of nature has wisely provided a principle which is calculated to remove disease. It is very observable in fevers. No sooner is noxious or morbid matter retained in the system, than there is an increased action of the heart and arteries to eliminate the exciting cause by the skin, or it may pass off by other outlets established for that purpose. With what propriety, then, can this provision of nature be denied, as it is by some. A noted professor in Philadelphia or Baltimore, ridicules this power in the constitution; he says to his class, "kick nature out of the doors." It was this man, or a brother professor, who exclaimed to his class, "give me mercury in one hand and the *lancet* in the other, and I am prepared to cope with disease in every shape and form." I have not time to stop here, and comment upon such palpable and dangerous doctrine. I have only to say, let the medical

historian record this sentiment maintained in the highest medical universities in America in the nineteenth century. I am pleased, however, to observe that *all* physicians *do not* coincide with such views.

Disease, then, according to what has been stated, may be considered rather a healthy effort of nature than otherwise, or a restorative process to bring about a healthy action.

Many physicians adopt an absurd and dangerous practice in the treatment of disease, such as mercury, bleeding, &c.; and sometimes, notwithstanding, Divine Providence will assist nature, and cure in spite of their fool-hardiness and misapplied drugs. They then put on their peacock feathers and ascribe to themselves the success which results from her strong constitution.

Jaun says, "As an idiot at the clock turns on and only ends in stopping the machine, so rude practitioners continue working at the machinery of the Creator, until, through their ignorance of the laws of nature, all farther operation is suddenly suspended.

SECTION III.

GENERAL INDICATIONS OF CURE.

If, then, the cause of disease consists in the retention of morbific agents, and a recession of blood from the surface; if it be caused by morbid excitement, as we have already shown; if a deviation from a healthy standard is owing to the inactive state of the excretions, does not the plainest dictates of reason, common sense, and experience show the necessity of restoring those secretions? Is there, or can there be, any other indication of cure, if they are the only channels which nature makes use of to restore the system to health? and we confess we know no other. There is an effort of nature to restore these suppressed evacuations. The whole art of physic, then, consists in aiding her salutary efforts. Then what else is there to accomplish but to give such medicines as remove the obstruction and restore the secretions? This is shown by the crisis or termination of diseases in general. They subside when *perspiration* takes place upon the *skin*, by *diarrhœa*, by *vomiting* or *urine*, or *expectoration by the lungs*. With what propriety, then, we ask, do physicians of the old school give mercury or bleed? Do they fulfil any indications of nature? Nature cures no disease by salivation, nor does she seldom or ever cure any by bleeding. Hence we may safely say that they are injurious. They produce disease, *sui generis*, of a *specific* character. Bleeding lessens or destroys the healthy effort established by nature, and thereby counteracts her intentions and exasperates the complaint. An objector to this doctrine may say that nature relieves herself occasionally by bleeding at the nose, hemorrhoidal vessels, &c., which must be admitted; yet it is very rarely the case. But can it be proved that it is a healthy action, established for the same purpose as the common excretions? We think it is very evident that this is not the case. It appears rather to be the effect of disease, unequal circulation in the system; and, therefore, instead of pro-

Note.—I am aware that it has been alleged of late, by the author of a treatise entitled "Key to Medical Science," that there is no such principle as an effort of nature, or vital principle; but I cannot find a particle of evidence in his work to support this opinion: indeed I consider it as absurd to deny it as it would be to deny the existence of any material substance. It is self evident. It would be only a waste of time to attempt to refute a statement so directly at variance with the well-known laws of physiology, and even common sense

moting this, as we should do if it was a natural excretion, we find it good practice to check it by promoting perspiration, and thereby equalizing the circulation. But to be a little more particular: is any disease terminated, or scarcely any, by a discharge of blood from the system? Do they not almost *invariably* subside by *vomiting*, *purging*, *sweating*, and *urine*? and do not physicians form a favourable or unfavourable opinion of a disease by these symptoms? Then if health is restored in this manner, is it philosophy, is it reason, is it common sense, is it acting in the capacity of a servant of nature, to institute a mode of treatment which she seldom or never takes to accomplish this object? Besides, admitting that bleeding occasionally does occur and relieve, it will not prove the propriety of general blood-letting, as this cannot remove the cause, even if it should have the *least* beneficial effect.

That hæmorrhage sometimes occurs and affords relief, only shows the wise provision of nature in cases of ignorance on the part of the physician When he is unable to administer such medicines as will remove a malady by the proper and ordinary passages of the system, certain bloodvessels become preternaturally full, and are either distended or ruptured, by which bleeding follows, succeeded sometimes by relief. Had proper means been used, no such effect would have taken place. This provision of nature is like that established to return the blood after amputation: certain lateral bloodvessels, called anastomosing branches, become distended, which return the blood, and which never conveyed it thus before. A remarkable fact established especially for accident and ignorance.

Bleeding sometimes takes place from the gums, nose, &c., in scurvy and in yellow fever; but shall we infer, then, that this is a healthy effort of nature? It is well known to be the reverse. It is in the last stages that these characteristic symptoms prevail. Dr. Rush, I know, endeavoured to maintain that nature, in such cases, struggled to cast off the fever in this manner; and he, therefore, supposing it to be in accordance to her dictates, bled his patients nearly to death. Doctor Ross, a physician from the West Indies, extensively acquainted with the yellow fever, proved conclusively that hæmorrhage or bleedings of this kind proceeded from debility and relaxation of the bloodvessels: that it was no law of nature to cure the fever, but the effect of the disease. Then we ask, where is the authority, in imitation of nature, to cure diseases by blood-letting or salivation?

SECTION IV.

THE PHYSICIAN CAN ONLY BE THE SERVANT OR HANDMAID OF NATURE IN THE CURE OF DISEASE.

In reality we can cure nothing. We can only remove the offending cause, while nature performs a cure; and, therefore, lay it down as a fundamental maxim in medicine, that all the physician can do is, to act as a servant or handmaid to nature.

The author of the Medical Sketches thus remarks in relation to this subject: "The ancients," says he, "not only observed the effects of that instinct by which brutes are directed to certain plants for relief when they are unwell, and then applied them to the complaints of men, but they also attended with diligence to the manner in which nature, when left entirely to herself, relieved or threw off diseases. They perceived that certain disor-

ders were carried off by spontaneous vomitings, others by looseness, and others by augmented perspiration; and having thus learned how diseases were cured by nature, whenever her powers seemed too weak and tardy, then, and then only, they ventured to assist her by art.

Here it is worthy of observation, that although that sensation or instinct by which some animals are prompted to select particular vegetables for the removal of disorders, is not given in so strong or particular a degree to man; yet nature often directs him also, though in a more general way, to the best method of relieving his complaints. In fevers the patient generally has a desire for cooling, light, acescent drinks, and dislikes those which are of a heavier and more heating nature: he covets juicy ripe fruits of various kinds, and nauseates animal food; a free stream of air and a spacious cool bed-chamber are equally salutary and agreeable to him; while confined air and a small heated room are pernicious and oppressive. In those instances, what the sick person shows an aversion to has a tendency to promote the disease; and what he relishes has an effect in abating its violence. Other instances of the same kind might be enumerated: I will confine myself to one which I have frequently had occasion to observe.

Toward the end of very bad putrid fevers, when the patient, exhausted by the violence and length of the disease, lay constantly on his back, had continual startings in the tendons of the wrists; his lips and teeth being covered with a black crust; his tongue trembling, and with difficulty held out; the pulse weak and quick; in this deplorable condition, when the patient seemed insensible to everything else, he rejected, with every mark of aversion that was in his power, medicines of every kind; but upon his lips and tongue being moistened with wine, he sucked it in greedily, and was soon cured."

This doctrine is farther exemplified by the writings of Dr. Hillary, who states in his secret of curing diseases, by adopting a better system, "that, by accurately observing all the motions, endeavours, and indications of nature to carry off and cure diseases—and by observing by what *critical evacuations* she does at last cast off the morbid matter which caused them, and so restores health—we may, by the same method of reasoning, know both the methods and the means we should use to assist *nature* in producing those salutary effects; if we avoid all hypothetical reasoning, and by thus observing, following, and assisting *nature*, agreeably to her indications, our practice will always be more satisfactory and successful.

The human body is so wisely and wonderfully formed, that whenever any noxious matter is got into it that would be injurious or destructive, we may observe that it always so irritates, stimulates, and offends nature, that she always exerts her power, or the *vis vitæ*, to throw it off. And she acts with great regularity, order, and uniformity in her endeavours to expel the offending matter out of the body; and, by carrying off the disease, restores health and preserves life

And thus, by observing, investigating, and truly knowing the diseases and their causes, and justly reasoning therefrom, we shall know when to assist *nature* according to her indications; *and in this is contained the chief part of medical knowledge, and the true scientific principles of the medical art. And when we shall thus have learned of nature, by observing her laws and indications, we may reasonably hope to render the theory and practice of physic beneficial to mankind.*"

CHAPTER VII.

ON THE AGENCY OF HEAT AND COLD IN THE PRODUCTION AND REMOVAL OF DISEASE.

SECTION I.

The influence that cold possesses in the production of disease must be evident to every person of the least discernment. Medical writers have imputed the causes of diseases in general to the vicissitudes of the atmosphere; but the immediate effect of cold upon the system seems to have been but little understood, or very imperfect views of it entertained. Nor has the agency of heat in the cure of disease been well understood or duly appreciated. It is somewhat remarkable that both heat and cold are the cause of most diseases, while they at the same time are (the former more particularly) so eminently subservient to their removal. It would appear that a certain temperature of the body is necessary to maintain a healthy state of the system. Persons, however, will bear a great degree of heat or cold, if applied to the system gradually; but, on the contrary, if suddenly applied, the most serious effects follow. Great heat, however, can be much better borne than a great degree of cold, and it is on this account that cold plays such an important part in the production of morbid excitement. Some parts of the system are much more susceptible of cold than others. The minute bloodvessels of the surface, coming in contact with the atmosphere, are more susceptible of its impression than the internal organs. Cold, long and suddenly applied, brings on a torpid or inactive state of the capillary vessels, by which the pores are closed, morbific matter retained, and a deviation from health follows. The blood becomes obstructed in these vessels of the skin, consequently it is withdrawn from the general circulation, and the balance of it is lost, impaired, or rendered unequal. The consequence of all this is, that the blood recedes, or is driven back from the surface to some of the internal organs of the system; the heart and arteries become distended with an unusual quantity; increased action or more powerful contractions follow, to return the blood back to the surface, and to overcome the constriction of the capillary vessels, which greatly increases the circulation.

When we reflect upon the vast quantity of blood contained in the small vessels of the skin, we must be sensible of the effect it must produce upon the system when so much is stagnated or obstructed, or is driven back and forced upon the vital organs. The great bloodvessels become preternaturally full, the various functions impaired, and inflammation and congestion follow. Whatever organ or part of the system is the most predisposed to disease, will feel the effect of this change. It may be translated to the brain, and create inflammation of the lungs; or it may affect the liver, stomach, or bowels. The irritation occasioned thereby proceeds from two causes. First; an effusion of blood to the part. Second; morbific matter retained in the circulation.

The intimate connexion between the skin, the stomach, the heart and arteries, intestines, and other organs, readily accounts for the effect of cold

suddenly or long applied to the surface. Sometimes even very slight impressions, thus applied, cause the great quantities of blood in the minute vessels of the skin to recede, and to be thrown internally upon some portion of the organ: reaction then takes place. The heart propels the blood with redoubled energy back again to the extremities or the surface, by which the organ affected is relieved of its oppression. It appears, therefore, evident that there is a flux and reflux of blood constantly passing from the heart or centre to the surface of the body. Thus there is a regular balance or equilibrium maintained in the circulation, which constitutes, as it were, a standard of health.

When this balance of circulation is lost in the system; when the blood becomes unequal, or is driven from one part of the body to another, from the influence of cold or any other cause, morbid excitement or a deviation from healthy action is the consequence. I have observed this fact for many years in the course of my practice. It has been almost invariably the case, if one part of the system has suffered from disease, particularly inflammation, the opposite part of the system has been unusually cold.

"Many youths," says Emet, "particularly females and those whose occupations are sedentary, pass days, and weeks, and months, without even experiencing the pleasing glow and warmth of a healthy skin, and are habitually complaining of chillness of the surface, cold feet, and other symptoms of deficient cutaneous circulation. Their suffering unfortunately does not stop here, for the unequal distribution of blood oppresses the internal organs, and too often, by insensible degrees, lays the foundation of tubercles in the lungs, and other maladies, which show themselves only when arrived at an incurable stage."

When there is inflammation or pain of the head or upper portion of the body, there is a coldness of the extremities. I therefore always first, in the treatment of such complaints, direct my attention to the part thus primarily affected. My great object is to recall or restore the circulation as soon as possible, by bathing the feet and giving such medicines as promote a determination to the surface; and this practice is always attended with the happiest effect. As soon as the cutaneous circulation takes place the disease is relieved. It is very clear that the blood thus recedes from the surface in fevers, and in a great variety of other complaints. After the body has been exposed to cold suddenly or long applied, we see that the circulation ceases or is lessened in the capillary vessels, by the chills, sense of coldness, paleness of the skin, with a husky or dry state of it; and the great heat and commotion that rages throughout the system arises, no doubt, from an engorgement in the heart and arteries, with the irritation from the morbific matter retained in the circulation. It requires, therefore, but a small share of common sense or discernment to learn the indications of cure; which are, not to abstract any portion of blood from the system, which decreases the power of overcoming the disease in proportion to the quantity taken by inducing debility, but to recall the blood to the surface by the application of heat or sudorific medicines, or, in other words, to equalize the circulation.

Cold, it will be seen, therefore, causes a torpor and inactivity of the exhalents, and the system generally; while heat has an effect diametrically opposite, by stimulating these vessels to perform their proper functions; the effect of which is the restoration of warmth, vitality, and circulation. These phenomena are exemplified in the repulsion of eruptive diseases; upon the application of cold the eruptions disappear, and are translated to some other organ. In gout it will attack the brain, stomach, or intestines The ery-

sipelas or St. Anthony's fire is sometimes characterized by the same symptoms; also the measles, small-pox, &c. The remedy, therefore, must be obvious. Bleeding, which is resorted to by many, will take or endanger the life of the patient, by averting the power of reaction which is so essential to recovery, while the application of heat to equalize the circulation will prove a sovereign remedy. Bathing the feet and surface with warm applications and medicines to promote perspiration, will return the eruptions to the surface, or will carry them off through their proper channels or emunctories. By this means the morbid excitement preying upon the vascular system or internal organs will be relieved.

We may, therefore, see, from the effect of heat and cold upon the system, how greatly they are concerned in the production of disease and the restoration of health. A due regulation of both is of vital importance to the animal economy. If either is suffered to prevail to too great a degree, life becomes extinct.

It has been shown that heat and cold, especially the latter, is a fruitful source of disease; that they are (the latter more especially) the most common cause of all complaints; and admitting these premises, the importance of heat for their removal must be duly appreciated in a medical point of view, as well as the importance of cold where heat predominates.

Heat, properly applied to the system, will bring about symptoms the reverse of that occasioned by the exciting cause of the complaint. When the blood recedes from the surface it settles upon some organ; and, by its accumulation, together with the irritation arising from retained perspirable matter, the substitution and application of heat and other stimulating medicines will cause a revulsion, whereby the congestion, irritation, &c., will be removed by unloading these internal organs, and causing the blood to recirculate in the vessels of the surface.

When disease proceeds from too much heat of the body, or when fever arises to expel from the system morbific matter, and to equalize the circulation, it often becomes necessary to moderate it by lessening arterial excitement. In such cases tepid or cold water will have a salutary effect, by abstracting a portion of heat from the body by the evaporation that follows, together with the stimulus given to the exhalent vessels of the surface.

SECTION II.

DISEASES IN WHICH HEAT AND COLD ARE BENEFICIAL.

It may not be improper to mention some forms of disease in which heat and cold will prove eminently beneficial.

1. *Febrile Diseases.*—Fevers, as we have shown elsewhere, proceed from a check of perspiration, cold commonly proving the exciting cause. It must be evident, therefore, that the first duty of the practitioner is to remove the injury which it has caused to the system. The skin has become torpid, its pores closed, by which the vascular system particularly is disordered as a consequence. Heat must, therefore, be applied both internally and externally, to remove this morbid state of the skin, by restoring perspiration.

The blood is sometimes driven so suddenly and so forcibly from the surface and extremities to the internal organs, that the powers of nature are suspended, (occasionally cut off,) and a state of asphyxia or swooning fol-

lows It is on this account that not even a particle of blood can be drawn in such cases. The office of the heart and arteries, which is to send or propel the blood to every part of the body, partially or wholly ceases, on account of the prostrating and overwhelming influence of intense cold giving them such a shock that reaction cannot take place, or takes place very feebly. This was remarkably exemplified in the cold plague which raged in the southern and western states some years ago. Persons were seized with it in the manner just mentioned; and Dr. Anthony Hunn, of Kentucky, states that every other means proved useless but the hot bath, which recalled the blood from the centre to the surface. As soon as the heart and arteries became unloaded, they immediately began to play and perform their offices, when reaction and heat, consequently relief, immediately took place.

The following case, related by Dr. Hunn, is very applicable: "Mr. N. Rochester, Esq., came from what is termed the wilderness, for medicines for his father-in-law, Mr. Johnston, who was dangerously ill with the 'cold plague.' He had ridden day and night, and swam several streams in rainy and cold weather. When he was getting the medicines I predicted that he would undoubtedly also be taken with it, if he returned: I advised him to get a negro from his brother, in Danville, and send him on full speed to his father-in-law, while he remained for a day or two to recruit and refresh himself. He pleaded the absolute necessity of speedily returning personally He started, but on the short road from town to his brother's mansion he was suddenly taken with a terrible shaking and inexpressible torments, which drew him from his horse. He was carried to his brother's mansion, and I was immediately sent for. In a state of suffocation, with a clay cold feel of hands and face, and red suffused eyes, he exclaimed, that 'his insides were tearing to pieces,' with a constant raging desire to urinate, but he could not void a drop. The hot bath was quickly prepared, and the patient put into it. In less than half a minute he said: 'I feel easier, and can void urine.' The blood in his face, and warmth, and the pulse, (which was before hardly to be felt,) gradually returned, and a warm sweat dropped from his forehead. When he was taken out of the bath he was completely relieved: for the recovery was, in such cases, as sudden as the symptoms were dangerous and alarming. A gentle warm sweat was kept up for twenty-four hours, when he again started for the wilderness. On his road to his father-in-law's he was again taken, but immediately using the hot both, was enabled to reach the place of his destination, and remained well. Mr. Johnston, though despaired of, also quickly recovered by the same means.

In its highest grade this sickness wanted nothing to cure it speedily but the hot bath, with such medicine as kept the patient in a constant warm perspiration, not amounting to an actual profuse sweat: for this might cause indirect debility."

It is stated that a disease raged several years ago in the New England states called *typhoid pneumonia*, attended with similar symptoms. The skin and extremities were remarkably cold and torpid, with chills, &c.: nervous energy evidently much diminished. Nothing was found of so much utility in this complaint as heat or perspiration. The common people, I infer from the statement, treated it the most successfully, by using the vapour bath. It is said that its application arrested it at once. How different is the effect of heat and perspiration in these and similar diseases, from the practice of abstracting blood, which debilitates the system, protracts the complaint, and endangers the life of the patient, or, at best, if he recovers, injures his health; while the course here recommended returns the vital fluid to its proper

channel, thereby removing congestions and inflammations, restoring strength and warmth, equalizing the vascular and nervous influence, and removing the shock and mischief occasioned by the cold.

Dr. Gallup, who wrote on the disease above-mentioned, thus remarks "As the causes of the disease act upon the nerves, and show their morbid influence on the surface of the body by coldness in the first stage, want of perspiration, &c., the natural indication is, to restore warmth and activity to the surface as quickly as possible. I have succeeded in this oftentimes by the use of the warm bath. It is one of the most powerful agents we can employ, while at the same time it is safe and agreeable. Nothing is more common than for patients to express it as a great luxury. If it does not immediately bring on sweating; it invites the circulation to the surface, relieves external chills and internal pain, and prepares the system for the remedies which are soon to follow. Where the bath cannot be obtained for immersion, rolling the patient several thicknesses in blankets, dipped in warm water, serves as a substitute.

Perhaps no remedy is better agreed on as being generally useful in this disease than sweating, or, in other words, the application of external heat. If it is not always useful, it is in some solitary cases where there is an abundant heat from reaction having taken place in vigorous habits. At the onset of the disease, however, this remedy may be said to be always useful. External warmth is of vast importance in keeping up the centri-fugal action of the system. If the action is allowed to recede to the centre, by neglect of external warmth, after sweating has been used with advantage, the patient is apt to be exercised with sinking distress, and will be in danger, if heat be not immediately applied."

Dr. Armstrong, speaking of typhus, observes: "The warm bath is a safe and efficacious remedy, and, with the means above-mentioned, has considerable effect in equalizing the circulation." Again, in speaking of prostration, he remarks: "This depression of the animal heat, however, occasionally comes on in the collapse of typhus, without any apparent cause; an instance of which I have witnessed in a medical gentleman, who I believe would have died if external and internal warmth had not been promptly and perseveringly employed. When the pulse still remains oppressed, and the tide of the circulation does not return to the surface, some wine with warm water should be occasionally exhibited, and the patient speedily immersed in a bath, strongly impregnated with salt, and at least about the temperature of 100 degrees. He should remain in the bath till his skin becomes warm; and, on being removed, it should be well rubbed all over with hot flannel; he ought then to be laid in an aired bed, with bottles of warm water at his feet. This plan, together with tepid wine and water occasionally, will often promote a flow of blood toward the skin, and considerably relieve the viscera from congestion."

The following remarks on cholera, from a late number of the Medical and Chirurgical Journal, farther corroborate these principles:

"In the history of disease in this country we recollect but one that appears to bear any analogy, either in its general mode of attack, its great fatality, or the means most clearly indicated in its treatment, to the present cholera of Europe. The disease to which we refer is the *spotted fever*, which prevailed in the state of Maine in the year 1814. Its symptoms were more various than those of the cholera, and its fatal issue was not quite so speedy But the attack consisted in the main, in the sudden departure of blood from the surface, and an appalling prostration of the powers of life. Having been

an eye-witness to this epidemic, it has been recalled to our mind by every history we have read of the symptoms of cholera. We have seen persons in the fulness of health suddenly fall under its blow, apparently lifeless; and the sudden and obstinate coldness of the surface, in all cases, gained for the disease the popular name of *the cold plague*. In no disease have we seen so marked effects from different modes of treatment. Purgatives and venesection were generally followed by fatal results; where calomel was given, the unhappy sufferer often died while under its operation; and in spite of most forms of treatment, from the first, most heating and stimulating remedies internally and externally, with an unsparing hand, exerted an entire control over the disease. This practice was pursued with marked and almost uniform success by Dr. Page, of Hallowell, by that man of Ross, whose benevolence will never be forgotten by the hundreds of his townsmen to whom it has ever been liberally extended. In the small town of Wiscasset, containing about two thousand inhabitants, two or three (equal to sixty a day in Boston) were dying daily of this epidemic, until Dr. Page was persuaded to visit the place; and after the day he entered the town and introduced the mode of treatment that had been so successful at home, *not an individual died of this disease*."

I have extracted the following remarks from a communication by Dr. North, upon a malignant fever, lately prevalent in New London, Connecticut, and which still farther corroborate the doctrine of disease here advocated:

"As counter illustration in regard to malignant asthenia, the reader is informed that the first thirteen patients at Winchester, Litchfield county, were treated about twenty years ago upon the *then* fashionable, cooling, depleting plan of treating fevers; and I have the very best authority for saying that all of these patients died: and their constitutional organization was good, for they were young persons. Then the sweating and stimulating plan was introduced by the memorable Dr. Samuel Woodward, in imitation of Mrs. Hurlburt's process. After this the success was as great there as here, (having reference to the north part of Litchfield county, and some other places.) There was much oral testimony against depletion, and in favour of sweating, long before anything was printed on the subject. This accidental discovery, or revival of an ancient practice, in regard to malignant fevers or malignant asthenia, I regard as being now fully established by our experience in New London, *if it was not a long time ago.*

Non-professional readers may imagine that information in regard to depletion and sweating is annually taught in our medical schools. Such is not the fact.

If the plan in use among a few medical men in this country was adopted, mortality would probably be lessened in the eastern world. The plan is, to teach the ignorant to take a sweat in a warm bed the instant they begin to feel unwell, and not wait for the tardy arrival of a physician.

I hope the promulgation of the above facts may do more good among the sick than many medical speculations. These last may, however, give notoriety to authors, and manifest the greatest ingenuity of human brains. Broussa-ism, Homœopathetism, and slight monomania of many kinds may be useful, by amusing a grave profession, yet not very much benefit the sick."

2. *Rheumatism.*—In rheumatism also similar effects take place. It is in general caused by the sudden transition from heat to cold, bringing about the symptoms before-mentioned, and the same treatment is here called for.

Sometimes the force of the disease is concentrated upon some particular part of the body, the head, lungs, liver, or the joints: when this happens,

the act of producing warmth of the surface, and restoring perspiration, affords immediate relief, and often cures the disease in its incipient or forming stage. It is exceedingly important in fulfilling the indications here laid down, (in inflammatory rheumatism particularly, as well as febrile diseases) that, while we administer stimulating sudorifics or sweating medicines internally, we apply heat externally to the whole surface of the body, in order to remove the stricture or tension of the cutaneous vessels. If this precaution is not attended to, stimulating medicines will often increase or exasperate the disease. The reciprocal influence between the stomach and surface is such, that attention must be directed to both at the same moment or time, if we wish to equalize the excitement. Such is the sympathy or intimate connexion between the stomach and the skin, that it seems impossible for one to suffer, or be affected, without the other likewise suffers.

3. *The Lungs.*—The lungs are very liable to receive morbid impressions from the influence of cold suddenly applied to the body. After a person has been very much heated, and immediately after exposed to a current of air, or if he has been long exposed to the sedative and debilitating influence of cold, the pores become closed, recrementitious or morbific matter is retained in the system, and the blood in an accumulated quantity is thrown upon the mucous membrane or the parenchyma of the lungs. Irritation and inflammation take place, which, if not arrested, are followed by suppuration. Now, under these circumstances, *perspiration must be immediately resorted to, to counteract the deleterious effect of this morbific agent, viz., cold.* The blood also in this case, as in the other, recedes from the surface and is thrown upon the lungs, causing engorgement and irritation; therefore, it must be immediately recalled by these means. It is here that we have it in our power to arrest that terrific monster (phthisis pulmonalis, or consumption) which daily slays its thousands, by instituting this course of treatment, which will terminate the disease by resolution or without suppuration. Bleeding, so far from accomplishing this desirable end, will inevitably bring on dangerous or fatal prostration, and in all probability carry the patient to an untimely grave.*

4. *Dysentery.*—The dysentery is a disease in which the application of warmth to the surface and diaphoretic medicines are very serviceable. It has been thought by some, particularly the ancient physicians, to be a fever translated to the intestines; but, from the effect of perspiration in the complaint, we are led to believe that it arises from a retention of humours or acrid and morbific matter, which is translated to these parts. As soon as the patient begins to perspire freely, he experiences relief. The same good

* A person, speaking of the diseases of poultry, makes the following remarks, which show that the agency of heat and cold upon animals is similar to its effects upon the human system:

1. In these animals cold exercises a constant and determinate action on the lungs.

2. The effect of this action is the more rapid and more severe, the younger the animal is.

3. When cold does not cause acute and speedily fatal termination of the lungs, it produces a chronic inflammation, which is pulmonary consumption itself.

4. Heat always prevents the attack of pulmonary consumption; when the latter has taken place, heat suspends its progress, and even sometimes arrests it entirely, and effects a complete cure.

5. Pulmonary consumption is never, in any stage, contagious: fowls affected with that disease were not only all day long with the healthy, but at night roosted in the same places, without communicating their disease to them.

6. The action of too long confined air exposes these animals to abscesses of the cornea and inflammation of the ball of the eye. These abscesses and inflammations are also caused in a still more cruel manner by cold, especially when accompanied with moisture. This fact explains the manner in which diseases are generated in men as well as animals.

effects arise in bowel complaints generally. Spotted fever, cholera morbus, colic, diarrhœa, &c. Dr. Mosely, in his work on diseases of warm climates, strenuously insists upon the propriety of sudorifics in bowel complaints. External heat, in the form of fomentations, is invariably attended with an admirable effect in bowel complaints of every description. They divert the fluids from the intestines to the skin, and, by their stimulating and relaxing properties, prove very serviceable. The surface and extremities in these diseases are pale and cold, from which we see that the balance of the circulation in the system is lost. The recession of blood, in connexion with those foreign agents which are not eliminated by the skin, operates as an undue and as a disease-creating stimulus in the intestines.

5. *Pleurisy.*—In pleurisy I have been called when the patient appeared to be dying from the cause last-mentioned. The irritation upon the pleura was so great, that a sensation was created as if needles were piercing it, the breath nearly gone. In this case, when the disease threatened immediate destruction of life, and when scarcely a physician could be found, either in Europe or America, who would not have copiously drawn the vital fluid, and that repeatedly for days no doubt, I have pursued the course above recommended, viz., recalled the vitiated blood to the surface by producing free perspiration, and I have had the pleasure of witnessing sudden abatement of the pain, succeeded by a recovery of the patients in a few days.

6. *Apoplexy.*—In apoplexy this course is attended with much better effects than general blood-letting. I cannot think in this disease there is too great a quantity of blood which calls for an abstraction of it, but the disorder arises from unequal circulation. The blood recedes from the surface and extremities, and is accumulated or effused upon the brain. The remedy then is, *to equalize the circulation.* I have never failed to arrest the disease by such treatment, particularly in the commencement.

7. *Fits.*—In fits this practice is equally efficacious. I never knew it fail of affording relief. I was called some time ago to a man who had been subject to convulsions for years, and he had sometimes several in the course of the day. One of our most popular physicians in this city repeatedly bled him, without affording any, except momentary, relief. The treatment was now reversed, bleeding was entirely dispensed with, and means made use of to divert the fluid from the brain to the surface and extremities. Nothing at all was done for him, except on every accession of the fit to immerse his feet in warm water, to which ley had been added sufficient to render it somewhat sharp or biting to the tongue. This treatment alone in a short period effected a cure. I think I gave him little or no medicine.

8. *Syncope or Fainting.*—In asphyxia and fainting of every kind the immersion of the feet in warm water will restore the patient.

9. *Hysterics*, (*Hysteria.*)—In hysteria (hysterics) the same benefit will be experienced. The extremities here are cold, the surface pale, attended usually with chills, all which is accounted for on the same principles. Physicians generally are in the habit of bleeding in this complaint, notwithstanding it is a disease of debility; but this practice renders the disease worse. The treatment should be the same as before recommended. The feet and surface must be bathed with warm water and weak ley, and other means recommended to cause perspiration. If fits come on, the feet should be immersed in warm ley water.

10. *Intermittent Fever.*—In the intermittent fever, or fever and ague in the cold stage, stimulating medicines given internally, and heat applied externally, will be found highly beneficial. The application of sudorific or sweating medi

cines, just before a paroxysm or fit comes on, will often cure or diminish the violence and continuance of it. The duration of the hot stage is always in proportion to the cold; hence those medicines which lessen or moderate the cold, necessarily shorten or lessen the hot stage. The patient should, therefore, be well covered in bed, hot bricks or bottles of water may be applied to the sides and feet, warm drinks freely taken until perspiration succeeds.

In some cases of intermittent so powerful is the influence of cold upon the system, that little or no reaction takes place. Nothing but heat in this case will save the life of the patient.

11. *Headache*, (*Cephalalgia.*)—In headache the same course will be found useful, by diverting the fluids from the head and extremities; the pain arising from different causes will cease. That headache arising from *difficult* or *suppressed menstruation*, by bathing the feet in warm water and using a hip or warm bath, will often be removed without any other medicine.

12. *Dropsy of the Head.*—The dropsy of the head is also very much relieved by this process, by bathing the feet and surface, and cold or tepid applications to the head. It powerfully assists in allaying the inflammatory action.

13. *Inflammation.*—In phlegmonous and erysipelatous inflammation perspiration, aided by warm and relaxing poultices, are attended with excellent effects.

14. *White Swellings and other painful diseases.*—In white swellings and other painful diseases the application of heat in the form of steaming is attended with the happiest effects, and, indeed, is often a complete and sovereign remedy. Cases have been relieved and cured by it, which had baffled the skill of our most noted physicians. This principle, properly applied, will mitigate the acute symptoms of white swellings and similar complaints in fifteen or twenty minutes, and, by its repeated application, will wholly remove the horrid sufferings of the patient.

15. *Opthalmia, or Inflammation of the Eyes.*—It is difficult to make a practitioner, unacquainted with the fact, believe what salutary effects follow the means here recommended in cases of opthalmia, or inflammation of the eyes. I have cured blindness of one or two years' standing, when the disease has depended on sub-acute inflammation. I have merely ordered the feet to be bathed every night, or every other night, for a great length of time, and this treatment has recalled the blood from the head to the feet and surface, which, of course, lessens the pain and inflammation of the head.

A lady, whose child I had formerly cured of sore eyes, has just stepped into my office in company with a neighbour, whose daughter is now afflicted with the same complaint. In prescribing for it, she soon asked, "shall not her feet be bathed?" "This," added she, "contributed as much toward curing my child as the medicine did." When her head was in pain and her eyes much inflamed, bathing her feet gave immediate relief. This will not appear strange to the physiologist or the physician who understands the pathology of diseases in general. He will at once see the cause and the indications of cure.

We might here go on and enumerate a great variety of other complaints in which the same treatment will be found exceedingly beneficial: but sufficient has been written to show its importance and utility, as well as to give an idea of all other cases in which it may be advantageously applied.

This principle or method of treatment is very extensive. We know not how many diseases may be treated in the same manner. By substituting agents diametrically opposite to those which cause the disease, the cure is

effected: for example, a complaint caused by acidity in the stomach is cured by an alkali. In inflammation, or heat of any part, cold or refrigerant applications afford relief, and *vice versa*. Scurvy, which is caused by a long course of animal food, is cured by substituting vegetable food. Persons who are brought near the grave by this complaint, are immediately restored to health by pursuing this treatment; all which demonstrate the truth of the latin maxim:

"Contraria contrariis medentur."

The translation of which may be thus rendered: Diseases are cured by means or agents diametrically opposite to the causes which produced them.

The great object should be, in every complaint, first to ascertain if the circulation is uniformly and equally carried on through the system; and if this is not the case, as will be found in most diseases, the means recommended with others that will be hereafter mentioned must be resorted to, and persisted in until warmth and perspiration are restored. Copious and long-continued perspiration, except in the most urgent cases, should be avoided as injurious and dangerous. Many have been literally sweat to death by too great and too long-continued heat; more particularly by the steaming process now so much in fashion by those called "Patent Doctors."

Dr. Thompson, who has procured a patent to treat diseases principally by steaming and puking, states, in his theory of medicine, that *heat* is *life*, and *cold* is *death;* and under this impression, that this vital principle (heat) cures almost every disease, steaming or sweating is carried to such a degree that many have lost their lives by it. The abuses of it must be carefully guarded against.

It must be continually kept in mind that, in advanced stages of some diseases, (for instance, typhus fever,) when there is great prostration of strength, the heart and arteries having become exhausted by their ineffectual struggle to return the blood and morbific humours to the surface, to overcome the constriction of the skin, very stimulating sudorific medicines internally should not be given. In this case the most heating or stimulating agents, designed to promote perspiration, will only increase the disease. When called under such circumstances, the blood must be invited from the centre to the surface by repeatedly bathing the whole surface with tepid or cold applications, according to the temperature of the body.

SECTION III.

MEANS OF PROMOTING WARMTH AND PERSPIRATION.

I HAVE already hinted at some of the means to promote warmth and perspiration; but it may be proper to dwell somewhat more upon them in this place. In general, perspiration may be promoted by taking warm diluent drinks, and nothing is better than a strong infusion of catnip, freely drank; also bathing the feet in warm water or weak ley. The surface in most cases may also be bathed with the same, as warm as possible, while the patient is in bed. The clothes may be raised with one hand, and a piece of flannel dipped in warm ley applied with the other hand to the surface. When one side of the body has been thoroughly bathed from the neck to the feet, then the sick person must be turned on the other side and bathed in the same manner. The liquid should be kept hot or warm by the bed-side; addi-

tional clothing sometimes becomes necessary to aid the process. Bottles of hot water may likewise be placed to the sides and feet. These means will answer in many cases, but it often becomes necessary to apply more powerful means to accomplish this object. The pores of the skin are frequently so closed or constricted, that a greater degree of heat is necessary to open them. For this purpose there is nothing more simple and effectual than the *Vapour Bath*, mentioned under the head of baths, page 58. Certain other medicines to answer these indications will be mentioned while treating of different diseases.

SECTION IV.

THE REMEDIATE INFLUENCE OF COLD.

I WILL now speak of cold applications. This is a class of very great importance, one which has been too long in disrepute, and too little used in our attempts to alleviate human sufferings. Cold applications are required in high feverish heat, in all bruises, sprains, and inflammations, in violent headaches, sore eyes, wasp stings, &c.

Now let us look at the *reason* for applying cold. It is in all cases to *prevent too much inflammation*. It is one law of our nature, as before shown, that an unusual quantity of blood immediately rushes to any part inflamed. As proof, think how quick the eyelids will swell when struck, or the arm swell when stung by a wasp. Now, this swelling is in part owing to the flesh being crowded too full with blood. Again; it is another law of our nature that less blood goes to any part that is cold, and more to any part that is warm. As proof, in winter we come into the house with hands, face, ears, &c., white with cold; but we find the good woman sitting by the fire red with heat.

By this course of reasoning, then, we see why cold is applied, and may also learn all the cases in which it is required, viz., in all cases where we wish to prevent inflammation and swelling, or where swelling has taken place and we wish to remove it: and may learn likewise how effectually this may be done, by remembering that if we remain out in a cold evening long enough, that is, apply cold enough to the ear to freeze it, we have driven every particle of blood from it, and it is as white as a lily. In all common cases much less cold than that will answer our purposes. The effect will always be the same, differing only in degree. Cold will always keep the blood from rushing to the part; that is, will prevent inflammation and swelling, and that is what we are called upon to do. Having proved, then, that cold applications are necessary and useful, the next question will be, how will this application be made? What article shall be used?

I will say that there are many articles and many ways of accomplishing this object; but the cheapest, the most convenient, the neatest, and altogether the best mode of applying cold is, by means of cold water. Cold is applied then in cases of inflammation of various kinds. Of the brain, the application of cold water is attended with benefit. In certain cases of typhus fever ablution and the effusion of it has often been attended with benefit. Also in other febrile diseases, where the heat is above the natural temperature of the body, except in eruptive diseases, in which it should not be used. In hæmorrhages cold water is sometimes used with advantage. In weak and

inflamed eyes it imparts tone and a healthy action to them. In contusions, sprains, and burns the application of cold water is sometimes useful, and occasionally it has been found of benefit in the form of the cold and shower bath; but heat or warmth in most diseases is far preferable.

Cold seems almost invariably, when long and suddenly applied, to be repulsive to nature. After its application, particularly where the system is feeble, it is necessary that reaction or an effort of the system be instituted to counteract its effects. Therefore, when applied as above or last-mentioned, it must be considered as an enemy. Throughout the whole course of my practice I have found that heat exerts a much more salutary influence both in health and disease, and is, therefore, the most congenial to the system.

SECTION V.

ADDITIONAL REMARKS.

ALTHOUGH I have laid great emphasis upon the necessity and importance of promoting warmth and perspiration in diseases, I wish it not to be understood that it is *insisted upon or recommended to the exclusion of other appropriate means, or that other remedies be in anywise neglected.* I have dwelt more largely upon this subject, because physicians *generally have not paid that attention to it which it deserves, and because they, like Dr. Sangrado, have substituted bleeding for perspiration*, believing, no doubt, that no other means are sufficient to reduce it. Again, I have not in this treatise insisted so *strenuously* upon attention to the other excretions, because there is not so great a disparity in our views as there is on the subject of the capillary system.

We all agree upon the propriety of fulfilling most of the indications for the cure of disease; but *the wide, the radical, the irreconcilable difference* consists in the various *means* made *use of to fulfil those indications of cure.*

It appears, from the strictures on the treatment of the late W. H. Harrison, President of the United States, by Dr. S. A. Gallup, of Woodstock, Vt., that the treatment by his physicians might have been the cause of his distruction. He shows that it was *wrong.* He states that he was induced to publish his strictures to get rid of a burden which has for some time oppressed him. The disease was inflammation of the lungs, and the usual remedies were administered, viz., *bleeding, mercury,* and *opium.* Dr. Gallup, an old school physician, thus exclaims: "What shall we say of the medical treatment in this case?"

PART THIRD.

INTERNAL DISEASES.

CHAPTER I.

NOSOLOGY, OR A SYSTEMATIC ARRANGEMENT AND CLASSIFICATION OF DISEASES.

THERE have been several systems or treatises on nosology or the classification of diseases; one by Dr. Cullen, and which has been perhaps the most popular of any, and next to it that of Sauvages; one also by Hosack, Good, and other writers; but all have been found so prolix, arbitrarily arranged, and exceptionable, that many have rejected them almost with disgust, and pay no regard to any order or arrangement whatever. It does certainly forcibly strike the mind of an observer, that arranging diseases into classes, orders, genera, and species, as we do plants, is unnatural and injudicious, and I view every system of nosology that I have hitherto seen very much in the same light. I have not, however, been willing on this account to discard a systematic arrangement of diseases in every respect in consequence of the defects of writers upon this subject; but I have given such an arrangement or classification of diseases as does, in my humble opinion, supersede that of all others, by reason of its simplicity, and the easy, natural, and systematic classification laid down.

By this nosology it will be seen that any person of ordinary capacity, who has perused it once, will be able in a moment to refer any disease to its proper class, order, and species. No part of it is unnatural, arbitrary, or forced; but diseases are classed as they naturally occur, and the mind is left free to rest upon some one *specific disease*, in reference to the organ or part affected.

CLASS I.—FEBRILE DISEASES.

Order 1.	Intermittent Fever, Fever and Ague,	*Febris Intermittens.*
2	Remittent do. 2 Species,	*Febris Remittens.*
	1. Simple;	*Simplex.*
	2. Bilious,	*Biliosa.*
3.	Inflammatory,	*Febris Ardens*
4.	Simple Continued or Long Fever,	*Synochus.*
5.	Typhus, 4 Species,	*Typhus.*
	1 Mild,	*Mitior.*
	2. Putrid or Malignant,	*Gravior.*
	3. Yellow,	*Icterodes.*

	4. Spotted,	*Petechialis.*
Order 6.	Scarlet, 3 Species,	*Scarlatina.*
	1. Mild,	*Mitis.*
	2. Affecting the Throat,	*Anginosa.*
	3. Malignant,	*Maligna.*
7.	Puerperal or Child-bed,	*Febris Puerperalis.*
8.	Hectic,	*Febris Hectica.*

CLASS II.—INFLAMMATORY DISEASES.

Order 1.	Inflammation of the Brain,	*Phrenitis.*
2.	Do. of the Ear,	*Otitis.*
3.	Mumps,	*Cynanche Parotidea.*
4.	Quinsy or Inflammatory Sore Throat,	*Cynanche Tonsillaris.*
5.	Putrid or Malignant do	*Cynanche Maligna.*
6.	Croup, Hives, or Rattles,	*Cynanche Trachealis.*
7.	Inflammation of the Pharynx,	*Cynanche Pharyngea*
8.	Do. of the Larynx,	*Cynanche Laryngea.*
9.	Do. of the Bronchia,	*Bronchitis.*
10.	Hooping-cough,	*Pertussis.*
11.	Influenza,	*Tussis Epidemicus.*
12.	Cold or Cough,	*Tussis.*
13.	Asthma,	*Asthma.*
14.	Inflammation of the Lungs,	*Pneumonia.*
15.	Consumption,	*Phthisis Pulmonalis.*
16.	Pleurisy,	*Pleuritis.*
17.	Inflammation of the Pericardium,	*Pericarditis*
18.	Do. of the Diaphragm,	*Paraphrenetis.*
19.	Do. of the Stomach,	*Gastritis.*
20.	Do. of the Liver,	*Hepatitis.*
21.	Do. of the Spleen,	*Splenitis.*
22.	Do. of the Intestines or Bowels,	*Enteritis.*
23.	Do. of the Kidneys,	*Nephritis.*
24	Do. of the Uterus or Womb,	*Hysteritis.*
25	Rheumatism,	*Rheumatismus.*
26.	Gout,	*Podagra*, or *Arthritis*

CLASS III.—ERUPTIVE DISEASES.

Order 1.	Small Pox, 2 Species,	*Variola.*
	1. Distinct,	*Interpuncta.*
	2. Confluent,	*Confluens.*
2.	Cow Pox,	*Vaccina.*
3.	Chicken Pox,	*Varicella.*
4.	Measles,	*Rubeola.*
5.	Nettle or Scarlet Rash,	*Urticaria*
6.	Itch,	*Psora.*

CLASS IV.—DROPSICAL DISEASES.

Order 1	Dropsy of the Head, 2 Species,	*Hydrocephalus.*
	1. Internal,	*Internus.*
	2. External,	*Externus.*

Order 2.	Dropsy of the Abdomen or Belly,	*Ascites.*
3.	Do. of the Chest,	*Hydrothorax.*
4.	Do. of the Ovaria,	*Ascites Ovarii.*
5.	Do. of the Cellular Membrane,	*Anasarca.*
6.	Do. of the Scrotum,	*Hydrocele.*

CLASS V.—CEREBRAL DISEASES.

Order 1.	Insanity or Mental Derangement,	*Mania.*
	2 Species, 1. Idiopathic,	*Idiopathica.*
	2. Symptomatic,	*Symptomatica.*
2.	Nymphomania, or Furor Uterinus.	
3.	Melancholy,	*Melancholia.*
4.	Epilepsy or Falling Sickness,	*Epilepsia.*
5.	Apoplexy, 2 Species,	*Apoplexia*
	1. Sanguineous,	*Sanguinea.*
	2. Serous,	*Serosa.*
6.	Catalepsy,	*Catalepsia*
7.	Lethargy,	*Coma.*
8.	Fainting or Swooning,	*Syncope.*
9.	Giddiness,	*Vertigo.*

CLASS VI.—NERVOUS DISEASES.

Order 1.	Hysterics,	*Hysteria.*
2.	Hypochondria,	*Hypochondriasis.*
3.	Palsy,	*Paralysis.*
4.	St. Vitus' Dance,	*Chorea Sancti Viti*

CLASS VII.—GASTRIC DISEASES

Order 1.	Cholera Morbus, 2 Species,	*Cholera Morbus.*
	1. Bilious,	*Biliosa.*
	2. Spasmodic, or Malignant,	*Spasmodica, sive Maligna.*
2.	Water Brash,	*Pyrosis.*
3.	Indigestion,	*Dyspepsia*
4.	Convulsions,	*Spasmi.*
5.	Cramp,	*Tetanus.*
6.	Heartburn,	*Cardialgia*
7.	Canker,	*Apthae.*
8.	Vomiting,	*Emesis.*
9.	Hiccough,	*Singultus.*

CLASS VIII.—INTESTINAL OR BOWEL DISEASES.

Order 1.	Dysentery, 2 Species,	*Dysenteria*
	1. Acute,	*Acuta.*
	2. Chronic,	*Chronica.*
2.	Bowel, Summer Complaint, or Relax,	*Diarrhœa.*
3.	Colic, 4 Species,	*Colica.*
	1. Flatulent,	*Flatulenta.*
	2. Bilious,	*Biliosa.*

3. Painter's,	*Pictonum.*
4. Hysteric,	*Hysterica.*
Order 4. Costiveness or Constipation,	*Constipatio.*

CLASS IX.—PROFLUENT DISEASES.

Order 1. Vomiting of Blood,	*Hæmatamesis*
2. Spitting of Blood,	*Hæmoptysis.*
3. Bleeding from the Nose,	*Epistaxis.*
4. Involuntary Discharge of Urine,	*Diabetes.*
5. Whites or Fluor Albus,	*Leucorrhœa.*
6. Immoderate Flow of Blood from the Womb,	*Menorrhagia.*
7. Abortion,	*Abortio.*
8. Cessation of the Menses.	
9. Incontinence of Urine,	*Eneuresis.*
10. Catarrh.	
11. Bloody Urine,	*Hæmaturia.*
12. Onanism, or Artificial Discharge of Semen.	

CLASS X.—REFLUENT DISEASES.

Order 1. Menses, Retention of,	*Chlorosis.*
2. Do. Suppression of,	*Amenorrhœa.*
3. Do. Painful Affections of	*Dysmenorrhœa.*
4. Do. Angina Pectoris.	
5. Night-mare,	*Incubus.*
6. Palpitation of the Heart,	*Palpitatio*
7. Urine, Suppression of,	*Ischuria.*
8. Jaundice,	*Icterus.*

CLASS XI.—CONSTITUTIONAL DISEASES.

Order 1. Scurvy,	*Scorbutus*
2. Urine, Heat of,	*Ardor Urinæ.*
3. Emaciation,	*Marasmus.*
4. General Debility.	
5. Mercurial Disease and Salivation.	
6. Enlargement of the Heart,	*Hypertrophy.*
7. Yaws,	*Frambœsia.*
8. Rickets,	*Rachitis.*

CLASS XII.—LOCAL DISEASES.

Order 1. Lumbago.	
2. Worms, 4 Species,	*Vermes.*
1. Pin,	*Ascarides.*
2. Long Round,	*Lumbricoides.*
3. Hair,	*Trichuris.*
4. Tape,	*Tænia.*
3. Teething, or Dentition,	*Dentitio.*
4. Poisons.	

Order 5 Headache, 2 Species,		*Cephalagia.*
	1. Idiophatic,	*Idiophatica.*
	2. Symptomatic,	*Symptomatica*

CHAPTER II.

PRELIMINARY REMARKS.

SECTION I.

DEFINITION OF HEALTH AND DISEASE.

Health.—When all the functions of the system are duly performed, a person may be said to be in *health.*

Disease.—Any alteration from this state, or when any part ceases to perform its office or function, disease is the consequence. It is a salutary effort of Nature to repair an injury to the system or re-establish health.

What is termed disease appears, in reality, to be nothing more than an inherent principle in the system to restore healthy action, or to resist offending causes. Pain or disease is not the result of any new or independent action in the system, but arises from an excess of excitement in the healthy function of the body; or, in other words, is, like fever, a healthy or conservative power of nature to expel noxious agents, or restore health.

Disease a Unit.—Is it irrational or unphilosophical to consider disease a unit? all its innumerable forms or symptoms being derived from one cause acting upon different organs or tissues of the body.

Disease, Primary or Symptomatic.—Disease is either primary (*idiopathic*) or symptomatic Primary, when it does not depend upon *any other.* Symptomatic, when it does depend on some other complaint; for instance, when the head aches by reason of a disordered state of the stomach.

Disease is Acute or Chronic.—*Acute*, when the attack is very severe, attended with violent symptoms, terminates in a few days, and is dangerous. *Chronic*, when it is slow in its progress, little or no inflammation, and is not attended with immediate danger.

Peculiarity of Constitution, (*Idiosyncrasy.*)—A peculiarity of constitution, in which a person is affected by certain agents, which, if applied to a hundred other persons, would produce no effect: thus some people cannot see a finger bleed without fainting; and thus violent inflammation is induced on the skin of some persons by substances that are perfectly innocent to others.

State of the Mind.—Fear, anxiety, and a fretful temper occasion and aggravate diseases. In vain do we apply medicines to the body for diseases which proceed from the mind. When that is affected, the best medicine is to sooth the passions, to divert the mind from anxious thought, and to keep the patient as easy and cheerful as possible. This constitutes a considerable part of the duty of those who prescribe medicine to the sick.

Age.—Here it must be observed, that the doses of medicine mentioned in this work (with some exceptions, pointed out in their place) are those adapted for an adult; but as in the two extremes of life, childhood and old

age, the body is weaker, and in early youth more susceptible of all the impressions, these quantities cannot be administered with safety in every case; and hence the judgment of the prescriber must be exercised.

Sex.—Although some women possess as much bodily strength and vigour of constitution as the majority of men, yet the greater delicacy and sensibility of the female frame, at every period of life, requires not only caution in apportioning the doses of active medicine, which should be less than those ordered for men of the same age, but the medicines themselves should be such as are likely to fulfil the indications without much violence. The state of the uterine system likewise must not be overlooked in prescribing for a female. Thus the employment of aloetic and drastic purgatives should be suspended during the period of pregnancy.

Temperaments.—It is undoubtedly true that persons of different temperaments or original confirmations of body are differently affected by the operations of medicines. Stimulants more readily affect those of a sanguine than those of a phlegmatic temperament, and, therefore, smaller doses are required. In the phlegmatic also the bowels are generally torpid, and require both a description of purgatives and such doses as would endanger an irritable and delicate constitution.

Habit.—Habits have considerable influence in modifying the operation of medicines. Persons addicted to the use of spirits, narcotics, and other stimulants, are less easily excited, both by medicinal stimulants and narcotics. Persons in the daily habit of taking purgatives must take a different article to produce much effect upon the bowels. In the employment of medicines, which require to be long-continued, the beneficial effect is soon lost if the doses be not increased.

Of the Form and Composition of Prescriptions.—In every prescription simplicity should be kept in view; and when such medicine will answer the intention of the prescriber, it ought to be preferred. The nauseous taste, however, and other qualities of some medicines, require the addition of others to modify their taste or action: but, although medicines are more generally prescribed in a compound form, yet the practice of accumulating a great variety of ingredients in one prescription should be avoided.

Medicines exhibited in a fluid form operate sooner and with more certainty than in the solid state; but in choosing the vehicle or solvent, the taste of the patient ought not to be overlooked. Syrups do this tolerably well. Medicines which, when given alone, produce griping, require the addition of aromatics to correct that quality; and when they operate with violence, mucilages or opiates are necessary to moderate their action. In prescribing purgatives it is also necessary to consider the particular part of the alimentary canal on which they immediately act. Thus, rhubarb acts chiefly on the upper part of the bowels, aloes on the lower, and jalap and senna on the whole intestines.

Another reason for ordering medicines in a compound form is, the necessity of producing two or more effects at one time. Thus, the same dose may be required in a case of colic, for example, to allay pain and to open the bowels, or in fever to determine to the skin, to allay irritation, and to produce sleep. But, in combining medicines, care must be taken not to bring together incompatibles, or substances that decompose each other, or chemically combine, and, consequently, alter the nature of the mixture, or render it inert, unless the resulting compound be the remedy on which the prescriber relies. Thus, acids and alkalies are incompatible, unless the neutral salt be the remedy required.

Doses.—It should be remembered that when we speak of a tea-spoonful being a dose, one of an ordinary size is meant, which is a fluid drachm.

When a table-spoonful is mentioned, one also of an ordinary size is meant, and which is half an ounce.

Pills.—When the weight of pills is not mentioned, those of an ordinary size are meant; they contain usually three or four grains.

I prefer this method, because it is much more convenient than to weigh every time it is necessary to administer it, and it is sufficiently accurate for all ordinary medicines. When greater accuracy is required, the weight and measure will be mentioned.

Prescriptions.—Every prescription or direction for the administration of medicine, except the prescriber gives it himself, should be in writing, and that very plain and explicit. The quantity to be given, and the time when it should be given, ought to be particularly mentioned, and these directions ought to be left with the nurse only. Many valuable lives have been lost for the want of these precautions.

Cardinal rules in the practice of medicine, to be committed to memory:

1st. As far as practicable to ascertain the disease.

2d. What indication or intention to fulfil in treating it.

3d. The best agents or means to accomplish this object.

4th. To administer the medicine at the right time, or when it is obviously required.

5th. Give as little medicine as possible to answer the purpose.

6th. Give the most simple kinds or compounds.

7th. To know when to omit the administration of medicine, and to rely on the resources of nature, with diet, bathing, regimen, and nursing.

In these rules consist the principal art of healing the sick.

The physician who assists our nature to throw off disease and recover health with the least use of medicine, is the best friend to our constitution, and evinces the most true science and skill, and deserves our highest respect and warmest gratitude.

The greater the ability, age, and experience of physicians, the less medicine they give: the longer they practise, the more they depend on the restorative efforts of nature, and the less confidence they have in the specifics of art. Therefore do not think less favourably of your physician, if you employ one, because he prescribes little. Thousands are sent to their graves by the very medicine which is intended to cure them.

CHAPTER III.

CLASS I.

FEBRILE DISEASES.

Character.—This class of diseases is characterized by an increase of heat, an accelerated pulse, a foul tongue, and an impaired state of several functions of the body.

SECTION I.

FEVERS IN GENERAL.

Fever constitutes perhaps the largest proportion or class of diseases which assail the human family; and, notwithstanding the numerous inquiries, experiments, and theories on the subject by medical men, from time immemorial the *nature*, *cause*, and *treatment* remain the same; and there is, at this day, no uniformity either in opinion or practice; they all go blindly to work to cure it, like the physician mentioned by D'Alembert. He compares him to a blind man armed with a club, who comes to interfere between *nature* and *disease:* if he strikes the disease, he kills the disease; if he *strikes nature*, he *kills nature* or the *patient*.

Says a writer, "This is the disease which, to break, to baffle, to conquer, or subdue, the learned colleges of physicians have tried all their efforts, and spent their skill in vain. It must run its course, is the common sentiment; if one mode of treatment fails, we must try *another*, and *another*, and *another*, till the exhausted imagination, the worn out sources of the meteria medica, and the dying patient arrest the hand of the experimenter, (and I might have said tormentor,) or nature triumphs equally over medicine and disease.

The practice of medicine is, perhaps, the only instance in which a man can profit by his blunders and mistakes. The very medicines which aggravate and protract the malady, bind a laurel on the professor's brow; when at last the sick is saved by the living powers of nature struggling against death and the physician: he receives all the credit of a miraculous cure; he is lauded to the skies for delivering the sick from a detail of the most deadly symptoms of misery, into which he himself had plunged them; and out of which they never would have arisen but by the restorative efforts of that living power which at once triumphed over *poison*, disease, and death.

The causes which have conspired to cover with uncertainty the treatment of fever, and to arm the members of the faculty often against each other, are numerous and important. A brief detail would unfold the many causes of error, and the fatal consequences which often result from the established practice."

Doctor Eberle, who has lately written a treatise on the Theory and Practice of Medicine, thus remarks: "When, indeed, it is considered that the destroying angel has made his most desolating visitations under the form of febrile epidemics; and that in the long list of human maladies *fever* occurs in perhaps nine cases out of ten, the paramount importance of this subject is strongly forced upon our convictions."

"If we except," says Van Swieten, "those who perish by a violent death, and such as are extinguished by mere old age, (and which are, indeed, few,) almost all the rest die either of fever, or of diseases accompanied with fever. We read in Pliny with what fear and trembling the Romans endeavoured to have this universal disease, *fever*, appeased, by their supplications in the temple of Fanum. And hence, perhaps, it is that fevers are called *diseases* by Hesiod, and that Horace calls all diseases simply fevers when they rushed out of the box of Pandora."

Dr. Donaldson, who published a new Theory and Practice of Fevers, remarks as follows:

"From a retrospective glance at the history of our science, we are forced

to acknowledge that there is perhaps no subject which is more eminently calculated to humble the pride of human reason than this one. For, in relation to this subject especially, pathology has been in a continued state of revolution and instability. The human mind has been engaged with this subject for near three thousand years. Theories have risen and sunk again in a continued and rapid series of succession; each has had its hour 'to strut upon the stage,' and its votaries to yield it faith; but the stream of time has hitherto overturned all these unsubstantial, though often highly wrought, fabrics.

In fact, no physician whose works I have read, no professor of medicine whom I have heard speak on the nature of diseases, has ever discovered, or even hinted at, the nature and cure of fevers; all have delivered theories which amount to open acknowledgments of their ignorance of it; or have candidly professed the universal ignorance of all physicians in the world, of the former and present times, respecting the nature of these diseases.

I observed the plan of cure followed by the East-Indians in fevers. I saw the practitioners cure the most vehement cases of intermittent fevers in the space of a single day, with such a mathematical precision and certainty as I never beheld in any region of the earth—by *purging*, *vomiting*, *sweating*, *&c.*"

DESCRIPTION, OR DEFINITION OF FEVER.

Fever is an increased action of the heart and arteries, to expel from the system irritating or morbific matter, or to bring about a healthy action. It is salutary in its nature, being the means used to throw off something that offends or oppresses her. It is often fatal; but this is rather to be attributed to the fault of the constitution than the disease itself, or rather to the want of proper remedies.

When a person is attacked by shiverings or rigours, followed by a hot skin, a quick pulse, and a feeling of languor and lassitude, he is said to have an attack of fever. With such symptoms are usually present also a loss of appetite, thirst, restlessness, and diminished secretion. These constitute the leading symptoms of fever, the characteristic features by which its presence may always be detected. Every function of the body, indeed, is more or less disturbed.

CAUSES.

As much controversy and speculation as there is respecting the pathology or nature of fever, we think there is no complaint that is more simple or easily understood, as regards causes, symptoms, and treatment.

It would be too tedious farther to enumerate the various theories that have been maintained respecting the origin and nature of this class of diseases We shall, therefore, omit this, and enter into a practical disquisition of the subject.

I shall now speak of the remote, intermediate, and proximate cause of fever.

We may consider fever a unit; that the various phenomena of the complaint depend not so much upon any specific difference in the many types of fever, but consist rather in the various exciting causes, habit, temperament, &c.

Remote Causes.—In general, every cause capable of producing a departure from a healthy standard predisposes the system to fever.

1st. High atmospheric temperature may be mentioned as a cause.

2d. *Cold.*—As a cause of fever, cold plays a very important part. It

diminishes the action of the capillary vessels, giving a pale, shrunken, and dry state of the skin. It also diminishes the sensibility of the system.

The most prolific and fruitful source of disease is *cold united with moisture.* When the atmosphere is cold and dry, it seldom causes any complaint; but in damp, wet, and very cold weather the system becomes more susceptible of morbid impressions. Much, however, depends upon the state of the body when exposed to cold. If it be very gradually applied, it can be borne with impunity: but if it be applied suddenly, and especially when there is great perspiration, fever or inflammation succeeds.

All sudden transitions from heat to cold, or cold to heat, are sources of fever. The capillary system ceases to perform its office, or performs it imperfectly, the consequence of which is, that vitiated blood recedes from the surface, and is accumulated in too great a quantity upon the heart and large arteries, which causes in them an unnatural or preternatural effort to return it to its original channels, or into the vessels of the skin, to relax or overcome its constriction, and thereby expel the irritating, morbific, or perspirable matter.

3d. *Heat.*—Heat may also be reckoned as a remote or predisposing cause to fever. Dr. James Johnson, in speaking of the effect of heat upon the system, thus remarks: "Solar heat produces only the predisposition, while terrestrial exhalations and cold call into action the principal diseases of hot climates."

The mode in which solar heat contributes to the production of disease appears to be either by augmenting the general irritability of the system, or more generally by exciting inordinate functional action of the skin and the liver, and thereby rendering them more susceptible of the paralyzing impression of cold.

Between the skin and the liver there exists a close and powerful sympathy, in consequence of which whatever excites the functions of the former produces perhaps an equal increase of the function of the latter organ.

Heat also operates as a cause of fever, by extricating or evolving certain deleterious gases or agents.

Infection.—*Deleterious Effluvia.*—By this term we understand a class of febrile agents floating in the air, and which is taken into the circulation through the medium of the lungs. It may be divided into three kinds:

1. Effluvia arising from the decomposition of vegetable agents.
2. An effluvia produced by a person in a state of disease.
3. Effluvia from putrid animal substances.

1. *Marsh or Vegetable Effluvia.*—The effluvia arising from the decomposition of vegetable matter, aided by a suitable degree of heat, and perhaps moisture, mixes with the atmosphere and contaminates it. This is taken into the system, and, if not thrown off by some of the excretory ducts, proves an exciting cause of fever.

It is an established fact, that marsh and other effluvia, passing over bays or rivers of water, are absorbed and annihilated.

Daily experience still confirms that it is in the neighbourhood of marshes, and all such places where vegetable and animal putrefaction takes place to any extent, that pestilential and other diseases of various grades and violence prevail. Epidemics, attended with carbuncles and buboes, which are denominated, in conjunction with ordinary symptoms of what is called jail and hospital fever, the characteristics of the plague, down to the mildest intermittents, have appeared and raged with extraordinary violence, occasioned by the exhalations from putrifying animal and vegetable substances.

There can be no doubt but stagnated water is a very common cause of fever under any circumstances. It is related, in Goldsmith's Animated Nature, that a vessel became becalmed in the ocean, near the Cape of Good Hope. When the water had been perfectly still for some time, its surface was covered with a green slime, and numerous snakes and other animals were seen in different directions. The consequence of this corrupted state of the water was, that a number of the crew became sick of a fever and soon died. As soon as they were favoured with a breeze, no more were attacked, and recovery of the sick succeeded. This fact shows that a deleterious gas or effluvia proceeded from the water and generated the disease.

2. *Human Effluvia.*—By this term we understand such a secretion from the body of a person labouring under disease as is capable of producing another of a similar nature, aided also by filth, heat, and other causes. It occurs in crowded apartments, jails, hospitals, ships, &c., and other places not duly ventilated. Dr. Smith, of New York, observes, that this effluvia is especially generated in the apartments of the sick, particularly of those who are labouring under a typhus state of fever. Dr. Eberle, of Philadelphia, says: "I would restrict this term to those morbific effluvia which are generated by *decomposition* of the animal secretions, whether formed in a state of health or disease, and to the ordinary exhalations from the body, when accumulated in such a manner as to deteriorate the atmosphere of confined rooms, if these be really capable in themselves, and without decomposition, of exciting fevers." This effluvia is the source of typhus and some other continued fevers.

Under this head may be enumerated the effluvia or contagion arising from persons labouring under small-pox, measles, scarlet fever, &c.

There is an instance recorded in the New England Medical Journal, from Dr. J. A. Allen, in the state of Vermont, of three persons having died in one house of typhus gravior or malignant typhus. The weather being unusually warm, the corpses of the last two suddenly run into the putrefactive process, and not being deposited in coffins sufficiently close, the effluvia evolved was very offensive to the people who attended the funeral ceremonies. Nearly all who were exposed to those septic gases had an attack of the disease; and from the sick it was communicated to their attendants through the season, and thus it became epidemical. The interim of time from exposure to an attack was from ten to twenty-one days. The spasmodic cholera may be communicated in the same manner.

3. *Animal Effluvia.*—Putrid animal matter is another cause of fever. Magendie found that, on exposing different animals to the exhalations arising from putrid animal matter, diseases were produced in them similar to those produced by pestilential effluvia. It is, therefore, very probable that such putrid agents floating in the atmosphere constitute the deleterious principle of putrid animal effluvia, and that the different kinds or modifications of disease produced by it depend upon the state of the system, peculiarity of constitution, the quality of noxious effluvia, and the substances from which it is derived

It has been from this source that many pestilential fevers have originated in different parts of Europe, particularly after battles. The gas or effluvia arising from the decomposition of dead bodies after a battle, when they have been suffered to lay above ground, has caused fevers of the most fatal character

It appears very evident that contagious diseases, fevers particularly, are communicated to the system through the medium of the lungs, and not the stomach, as some suppose. The small-pox cannot be communicated by conveying the poison or virus into the stomach, as has been proved; but, on

exposing animals to the effluvia arising from putrid substances, they became diseased and died. After this poison has been taken into the circulation, it acts as a foreign or extraneous agent to the internal surface of the heart and arteries, and there is immediately commotion or effort to dislodge it by the skin or the other excretions; and if they perform their offices well, if the perspiration be not obstructed, or if it be free, such agents or poisonous effluvia will be carried off without much shock or injury to the system. But, on the contrary, if it be predisposed to the disease by any means whatever, fever becomes established, to effect what the powers of nature are unable to accomplish. It is under such circumstances that her salutary efforts must be aided.

The reason why the stomach is generally so much affected in febrile diseases is, in consequence of the lungs and their appendages being lined with a continuation of the mucus tissue of the *primæ viæ*, or first passages, and, therefore, being more accessible to the deleterious air or effluvia inhaled or inspired.

Intermediate Causes.—Among the various intermediate causes of fever may be ranked *a morbid state of the stomach*, arising either from vitiated bile, worms, or other sources of irritation. This morbid condition of the stomach, however, sometimes arises from the deleterious state of the atmosphere. A late French author, Broussais, maintains that the source of all diseases originates in the stomach and first passages, or the mucous membrane of the alimentary canal. This he terms *gastro enteritis*. In accordance with this theory, he gives few or no purgatives, but prescribes the mildest and simplest medicines, leeches over the region of the stomach, glysters, &c.

But the principal and almost only intermediate cause of fever is, obstruction in the capillary vessels; cold, suddenly applied or long-continued, acts as a sedative, closes the pores, and thus becomes a powerful intermediate cause of fever. A viscid state of the blood or other fluids may in part cause this obstruction.

Nature, in such circumstances, appears to be retreating before some powerful invader; but when the sedative powers are violent and suddenly applied, she makes strong efforts to relieve herself, and the gates of this tumultuous city are barred, while she is assembling all her forces to expel the enemy; for during the paroxysm of fever the pores are strongly closed, while the vital energy is evidently concentrated and collected in the heart, which propels the blood with renewed vigour through the arterial system in its whole extent.

It is not found easy to explain how debility produces this spasmodic contraction, but it is imputed to the *vis medicatrix naturæ*, or the law in the animal economy above-mentioned, by which motions are excited to obviate the effects of anything noxious to the constitution; and that the spasm exists appears from the suppression of all excretions, and the shrinking of the external parts during the cold stage. This proves an indirect stimulus to the sanguiferous system, by throwing the blood, mixed with acrid perspirable matter, back with violence upon the heart and large arteries, and exciting them to stronger and more frequent contractions; which increased action of the heart and arteries continues till it restores the diminished energy of the brain, extends this energy to the extreme vessels, overcomes the spasm, restores their action, on which sweat breaks forth, the other excretories are also relaxed, and the fever abates.

Proximate or Immediate Cause.—The proximate or immediate cause of fever is a retention of acrid, stimulating, or morbific matter or humours, which, instead of being carried off by the outlets or excretions of the system

enter the circulation, and stimulate the heart and arteries to an undue and increased action, to overcome the obstruction of the capillary vessels and to expel such morbific matter.* *The seat of fever, then, is in the bloodvessels or the vascular system.* It is well known that most fevers follow a sudden check of perspiration. Hence it is evident that the exciting cause must be in the blood, and arises from an excess of stimulus, or a morbid excitement applied to the heart and arteries, or the sanguiferous system. This fact is demonstrated by the phenomena of eruptive disease, small-pox, measles, &c. This infection or contagion is taken into the blood through the medium of the lungs, and as soon as it becomes sufficiently impregnated with the specific humour or virus, a preternatural action of the bloodvessels immediately takes place. Nature is aroused, and makes a powerful effort or struggle to expel the poison from the system. As soon as she accomplishes this object, the exciting cause or agent in these eruptive complaints is thrown copiously to the surface, and appears in the form of vesicles or eruptions; and when they are thus expelled, the fever immediately subsides, but will reappear if, from debility or other causes, the poison or humour is absorbed. It is the case also in hectic fever, as almost every one knows; matter from the lungs or an ulcer is taken into the circulation, and causes fever. It is also proved from the termination of fever by sweat, and also by fever sores. These facts reduce it to a mathematical demonstration, and render the subject so simple and plain, that it is really a matter of profound astonishment that any one, the least acquainted with fever, should be ignorant of its nature, cause, and cure.

"The venous system," says Bichat, "may be regarded as a general reservoir, into which are poured all the materials which are to be thrown out of the body, and all those which are to enter it. In this last respect this system of vessels performs an essential part in the production and support of diseases. The deleterious substances may be introduced into the bloodvessels with the chyle, and produce ravages in the system in circulating with the fluids. There can be no doubt, moreover, that, besides the principles which convert the venous into arterial blood, there often passes through the lungs into the circulation deleterious miasmata, which produce diseases, as my experiments on fainting have proved. The intestines, the lungs, and the skin are the three avenues through which the morbific agents may gain admission into the circulation."

With all the evidence which we possess, therefore, that the blood frequently becomes charged with substances of an irritating or deleterious character, there can surely exist no reasonable doubt that fever must sometimes be the result of a direct and primary irritation of the heart and arteries; for it will, most assuredly, not be denied that agents which are capable of causing morbid impressions on the nerves of the skin, the alimentary canal, or of any other organ, will be equally capable of producing irritation in the heart and arteries, when they are brought in immediate contact with their internal surface.

These morbific agents may likewise act upon some organ, cause inflammation, and thereby produce symptomatic fever.

The acid sweats (says a writer) thrown out from the poisoned mass of blood by means of the small exhalent arteries, in malignant and pestilential diseases forming the matter of infection, and adhering to the bed-clothes and linen, which, by its corrosive qualities, it destroys and rots—and, if exerted

* Dr. Mitchill supposed this agent to be carbonic acid gas, mixed with oxygen.

in any considerable quantity, so commonly relieve the patient, (inasmuch as the volume of poison contained in the arterial system is thereby lessened,) —show that the blood, in certain diseases, contains something of a noxious nature. The appearances also which blood, drawn in pestilential fevers, puts on corresponds with that in which septic gas had been artificially injected. Blood, thus infected with this poison, taken up by the absorbent vessels, will continue to stimulate the heart and arteries, wearing out their excitability, and, consequently, bring on death, if the constitution be incapable of becoming habituated to its stimulus, or a part or whole of the stimulus be not subducted. If it be present in any great quantity, it may cause a sudden extinction of the vital principle, as is observed sometimes to happen in highly pestilential diseases.

In a word, we may sum up the causes of fever as follows:

1. *Remote Causes*

1. Cold.
2. Heat.
3. Marsh or vegetable effluvia.
4. Human effluvia.
5. Animal effluvia, to which may be added great exertion and fatigue, the passions, injuries, &c. But cold, or a check of perspiration, no doubt produces three-fourths of febrile diseases.

2. *Intermediate Causes.*

1. Morbid state of the stomach from worms, bile, &c
2. Obstruction in the capillary vessels.
3. *Proximate Causes.*—Extraneous morbific or deleterious agents, generated in or out of the body, mixed with the blood, and acting as incitants or stimulants upon the internal surface of the heart and arteries, propelling the blood with increased force or velocity, in order to expel these morbific agents by the skin or other outlets or excretions of the system; and, therefore, fever may be considered a *friendly effort of nature* to restore the system to health. It is evident that the deleterious agent is first mixed with the *blood* and occasions the fever; and, consequently, if not arrested, it fastens itself on some of the organs or solids, and causes irritation and inflammation.

SYMPTOMS.

1. *Chills and Heat.*—The first characteristic symptom of fever is chills, succeeded by a preternatural degree of heat. Sometimes the chill is very severe, at other times very light; but fever is almost invariably ushered in by this symptom. The patient complains of great coldness; he shakes and trembles; the skin becomes pale, rough, and shrunken, and sometimes there is a sensation as if cold water was running down the back. After a while the chillness subsides, and flushings and heat prevail, with a return of the colour of the skin. The eyes and face become red, and the patient now complains of heat. This may be said to constitute the "hot stage" of fever. The continuance of the cold stage is very uncertain: sometimes it lasts an hour; at other times it continues several days, with alternate flushings of heat.

I have never seen any satisfactory or reasonable cause assigned for the

chill or cold stage of fever: but it appears to me very obvious and self-evident. When the blood, by cold or anything else, is obstructed in the bloodvessels of the surface, it must recede, be thrown back, and accumulate upon the heart and great bloodvessels. Cold, then, as a matter of course, must predominate. The blood or circulation, the cause and seat of animal heat, being cut off, or carried on very partially in the vessels of the skin, there is then experienced a cold sensation, which we call chills or rigours. As soon as an unnatural or a preternatural stimulus of the blood is felt by the heart and arteries on account of such obstruction, a powerful reaction takes place to overcome it, the heart beats more violent, the pulse is accelerated, and the blood is thrown back into the capillary system so forcibly as to cause an unnatural or too great a degree of heat, which we term fever. Thus we see that a battle, as it were, occurs between these two contending parties or agents, cold on the one hand, termed chills, and heat on the other, termed fever. If the former (cold) prevails, the disease proves fatal; if the latter, (heat,) recovery or health is the result; that is, if it so far prevails as to overcome the obstruction or remove the cause of the disease. In other language, there is a struggle between the vital powers and the febrific agent.

2. *Increase of the Pulse.*—Another invariable symptom is an increase in the frequency of the pulse. It usually becomes more frequent, fuller, and harder; showing clearly the increased action of the heart and arteries, which, however, is modified or altered by various incidental circumstances; by some of the passions; by diet, air, medicine, &c.

3. *Debility.*—Another invariable symptom attendant on fevers is debility. There is a sense of languor, lassitude, and fatigue, which is generally increased by any exertion.

4. *Pain.*—There is pain experienced in different parts of the body; in the head, neck, and along the course of the spine and in the extremities; in the muscles and joints; a sense of soreness of the flesh or bones, and great depression and heaviness is complained of; a general trembling; want of sleep, or it is disturbed and unrefreshing; there is a peevish or fretful temper, and difficult respiration.

5. *The Secretions.*—All the secretions and excretions of the body are deranged on or before the accession of fevers. By looking at the tongue, the back part of it in particular, a very unhealthy and morbid appearance will be discovered: it appears coated with a foul substance, and this serves as an index to point out the accumulation of bilious matter, or a disordered state of the stomach. There is usually thirst, loss of appetite, nausea, and vomiting. The mouth is dry and clammy; the skin is dry and parched from diminished perspiration; the urine is scanty and high coloured, and there is generally constipation of the bowels, and the evacuations from them are generally dark and fetid. In a word, all the functions of the body are impaired.

6. These are the leading characteristic symptoms of fever; from various causes and circumstances, there is an infinite number of variations and modifications; but such are the most prominent features of this class of diseases

7. *Fever is Primary or Symptomatic.*—There should be a distinction made and kept in view between primary and symptomatic fever. First; Primary, when it does not arise from any other complaint. Second; When it does arise from some complaint, as injuries, wounds, &c.

8. *Restoration of the Secretions.*—It is exceedingly important, in a practical point of view, ever to bear in mind the method invariably adopted by nature to cure a fever, which is the restoration of the secretions, and in most

cases it is by sweat or perspiration. Without this knowledge, there will be error in practice. But when a practitioner is well apprised of this fact, he will at once know what indications to fulfil; in other words, what course of treatment to pursue

COMMON TREATMENT.

The principal and almost only remedies (if such they may be called) resorted to by physicians in this day, are *mercury*, *salts*, *bleeding*, and *blistering* I shall not consume time here to descant on the impropriety and injurious effects of such practice: this has been farther exemplified in other parts of this work. It is sufficient here to observe that, instead of such treatment proving beneficial, by aiding nature to overcome the disease, it counteracts her salutary efforts, and either destroys the patient, endangers his life, or protracts his complaint; and should his constitution be sufficiently vigorous to withstand the combined influence of these "Herculean remedies," or, in other words, should the patient recover in spite of them and the violence of the disease, the subsequent effects injure or ruin his health.

The practice is certainly absurd and irrational; and I ask, is it not preposterous in the extreme, and can it be supported by arguments, reason, experience, or facts?

When a person is attacked with a fever, the whole sanguiferous system is stimulated or aroused to throw off or cast out the enemy, and she invariably points, as we before stated, to certain doors, outlets, or excretions of the system as the only natural and proper passages through which such enemy must be driven from the system; and it is the province of the physician to aid her in this wise and well-established effort and intention; but when such means are made use of, instead of rendering her the necessary assistance, her powers and energies are entirely crushed, weakened, or diminished: first, by bleeding; second, by administering a poisonous mineral, mercury, and thereby corrupting the fluids and inducing another dangerous disease, perhaps worse than the first.

I am satisfied that mercury and bleeding in febrile, as well as other diseases, bring on a contaminated state of the blood, and dangerous, if not fatal, debility.

REFORMED PRACTICE.

General Indications of Cure.—Restore the suppressed evacuations, or the secretions and excretions. This will remove the offending or irritating cause; and when this is removed, the effect, or, in other words, the fever, must necessarily cease. In fulfilling this *one* indication consists *the whole secret of curing febrile diseases.*

Particular Indications of Cure.

1. Moderate the violence of arterial excitement.
2. Obviate local inflammation and congestion.
3. Support the powers of the system.
4. Relieve urgent symptoms.

The necessity of fulfilling all these indications must be borne in mind by the practitioner: in every modification of fever it becomes his duty to render himself an assistant of nature.

What she endeavours in the commencement of the disease to accomplish, is, to evacuate the deleterious agents by the proper passages. The whole business of art, therefore, is to assist her in these two efforts of secretion and excretion of the morbific matter. The manner of effecting this, in every particular species of fever, is given under their respective heads: but as we are treating of fever in general, it may be proper to give the general principles of treating them, without entering into the various subdivisions or modifications. The treatment, however, here laid down is proper for all kinds of fever.

The remedies which are to be given to assist the secretion and preparation of the morbid and diseased matter, are, sudorific, diluting drinks and medicines, such as produce a determination to the surface, evacuate and give a healthy tone to the stomach and bowels, kidneys, &c.

Secretions and Excretions.—I have already stated that the great secret of curing fever is the restoration of the secretions and excretions: the violence of the disease is just in proportion to their torpor or obstruction; and as soon as they are restored and perform their offices, the whole catalogue of symptoms attendant on fever at once vanish, like fire before the watery element.

When they are restored to their healthy action, how quick does convalescence take place. The gastric, the alvine, the urinary, and perspiratory discharges and functions become natural; the heat of the system equalized; the pulse falls to its natural standard, and with this decline of the febrile commotion there is a correspondent healthy action in every organ; the appetite is improved, and strength and health is re-established.

The Stomach.—When we reflect upon the extensive influence of the stomach over the system, and particularly the skin, we shall be able more readily to appreciate the utility of emetics in febrile diseases. It is by reason of this intimate relation and connexion between the stomach and every part of the system that the administration of an emetic proves so very effectual: it not only cleanses the stomach of any bilious, feculent, irritating, or morbific matter, but it proves eminently beneficial by the general relaxation which follows it, approaching sometimes almost to fainting, and which extends to the skin, and produces perspiration. They may, as a general rule, be given where there is much nausea, and where there is no peculiarity of constitution to forbid. They are very serviceable in bilious, intermitting, and remitting fevers.

An emetic, given in the commencement of a fever, will sometimes remove it at once. Even when the stomach has been thoroughly cleansed, the exhibition of an emetic may be advantageously given, in consequence of the shock and stimulating effect given to the stomach, liver, and neighbouring organs. Intermittent fever has sometimes been cured by a single emetic.

In some diseases there appears to be such a morbid accumulation, that other medicines will not act upon the living fibre, and, therefore, this class of medicines becomes important as a preparatory step in the treatment. In typhus, and other modifications of fever, emetics may be beneficially administered.

"In the typhoid and typhus pneumonica," says Potter, "that occasioned such lamentable mortality, of late years, throughout the United States, emetics, judiciously employed, were more beneficial than any other remedy. It was indeed a novel spectacle to those who were accustomed to unsheath the lancet in almost every thoracic affection, to behold a pneumonic fever, perhaps an hæmoptoe, removed by the incantation of a single emetic."

"Emetics," says Dr Chapman, "exhibited early in fevers, (bilious par-

ticularly,) operating well, will frequently check an attack; and in the more advanced stages, judiciously repeated, we shall find by it the pulse reduced, pain in the head relieved, sickness of the stomach appeased, temperature of the surface lowered, with perspiration, which restores quietness and hastens a critical solution.

This precept is strongly applicable to the bilious fevers of our own climate, and especially as they occur in the southern states, where they prove exceedingly intractable under any other mode of treatment."

Sydenham has the following judicious remarks on the efficacy of emetics: "When I have happened," says he, "sometimes carefully to examine the matter thrown up by vomit, and found it neither considerable in bulk nor of any remarkable bad quality, I have been surprised how it should happen that the patient should be so much relieved thereby; for as soon as the operation is over the several symptoms, viz., the nausea, anxiety, restlessness, deep sighing, blackness of the tongue, &c., usually abated and went off, so as to leave the remainder of the disease tolerable." Wallace, commenting on this passage, thus observes: "Sydenham was not aware of the sympathetic affections which take place in the constitution, nor knew that an extremely small portion of morbid matter could produce effects so sudden and surprising from a local action, so as to derange the whole system."

The Bowels.—The intimate relation which exists between the whole of the alimentary tube or canal, the skin, and other parts of the animal economy, points out the necessity of promoting in them a healthy action.

Purgatives, therefore, have a decided good effect in fever. The preternatural excitement of the bloodvessels is sensibly diminished by the exhibition of purgatives. This effect takes place by removing the feculent matter which they contain, and by stimulating the exhalent vessels of the mucus membrane of the intestines, causing them to pour out copious effusions from the blood or circulating mass. Their importance must be seen in a striking view, when the length of the intestines is considered, which is about *thirty feet*, and also their office. There is an immense number of vessels opening into them through their whole extent, and from which there is poured out a vast quantity of feculent matter; and when there is a preternatural stimulus given to the intestines by purgatives, there is a sympathetic affection of the whole system; the circulation becomes more equal, the pulse is lowered, pain in the head and other parts diminished or removed, and there is a sensible improvement. Dr. Dewees has the following excellent remarks on the utility of purgatives in febrile diseases:

"In fevers of almost every description purging is not only useful, but in many is indispensable. There exists constantly a want of equilibrium in the circulatory system whenever the body is attacked with fever, and the determination, for the most part, is to the brain, the liver, the spleen, or to the lungs; and few remedies are found so effectual in restoring this want of balance as well-chosen and properly adapted aperients. Besides the determinations just mentioned, fecal matter in the bowels is constantly accumulating, which it is of much consequence to remove. Occasionally there will be a redundancy of bile, at other times a deficiency; and we are obliged sometimes to remove the one, or to solicit the other; and both of these ends are answered by the proper choice and exhibition of cathartics."

What an absurd and dangerous treatment must that of Thompson be, and his followers, who reject purgatives, not only in this, but every disease. See Thompson's Guide to Health, Howard and Mattson's works; all of

which inveigh much against this class of medicines, but highly extol emetics and steaming!!

Repetition of Purgatives.—Purgatives may be repeated daily, and in the morning before any nourishment is taken, in those fevers which ordinarily run their course in a short time; such as inflammatory and yellow fever. In those of longer duration, such as typhus and other continued fevers, they may be given every other morning, or once in three days may be sufficient, (according to the state of the disease, and other circumstances,) provided no particular symptoms or state of the system contra-indicate. Moderate doses of physic in general are sufficient, except in the onset or commencement of a fever, when a brisk purgative may be administered.

The Pores of the Skin, or Capillary System.—It appears that febrile diseases, in their very nature and essence, consist in a derangement of the skin or capillary system, and that no means will subdue a fever, until these functions are restored. We must be convinced of the necessity of this, from the extensive surface of the skin; its connexion with the stomach and sanguiferous system, and its important office in casting off superfluous and noxious matter. It is calculated that two-thirds of what is taken into the system is evaporated by sensible or insensible perspiration. Hence it will be seen what mischief will arise from a retention of this perspirable matter, and what benefit will also follow by restoring this secretion. Another great benefit to be derived from perspiration is the evaporation that constantly takes place on the surface, which keeps the skin cool and soft.

Diaphoretic or sudorific medicine, then, reduces general excitement, and is one excellent method of depleting the system. Evacuations from the skin invariably lessen the force of the heart and arteries, by taking from the circulation every agent which is useless or injurious; and, by relaxing the constriction of the surface, they remove congestions by a determination of blood to the extreme vessels; and, in a word, lay the axe, as it were, at the root of the disease.

No sooner does perspiration break out in a febrile patient, than there is a mitigation of all the symptoms; the dry, pale, and husky state of the skin is removed; the balance in the circulation is restored, and very often a violent attack of fever is cut short as soon as free sweating takes place. The object then should be immediately to restore perspiration, and continue it throughout the course of the fever; not violent sweating, but moderate perspiration, or a gentle moisture of the skin. It is by this moisture, or the dry and parched state of the skin, that we form a favourable or unfavourable opinion of the fever. If natural perspiration cannot be promoted, we predict danger. On the contrary, if it can be promoted and kept up, we predict a favourable issue. Indeed, on this depends the basis of our prognosis. One reason why ablution or bathing the surface lessens the heat or fever of the system is, that the air which comes in contact with the skin conducts off the caloric or heat of the body, and gives us a sensation of cold. Dry atmosphere, with a dry state of the skin, is a *bad* or *non*-conductor of heat, and, therefore, conducts off little; but a moist atmosphere or skin is a *good* or quick conductor, and carries off the animal heat from the body very rapidly This is one reason why bathing the surface has such an astonishingly beneficial effect in fever.

Sudorific or sweating medicine must, therefore, be given, but not too freely, especially after a few first days from the accession or the attack. If those medicines, which are very stimulating, will not fulfil this indication, or will not answer the purpose, then others must be given, such as will have the

desired effect without increasing the heat of the body, as lobelia, Virginia snake-root, sage, lemon balm, catnip, amaranthus, &c.

The following refrigerant or cooling drink I have administered with excellent effect: Take the juice of a lemon; cream of tartar, *supertartrate of potash*, one tea-spoonful; add a pint of water, and then sweeten with loaf sugar. Whenever the patient is thirsty, let it be freely drank.

I recently cured a violent continued fever by giving this drink alone, and bathing the surface with weak ley water about three times a day. The effect was almost immediate, and the fever removed in a very short time. The nature of the preparation, although simple, will convince the reader that it possesses very cooling or anti-febrile properties. It promotes the discharge of urine, is laxative, antiseptic, and refrigerant.

Of late I have prescribed *ipecac* as a *febrifuge*, instead of the *diaphoretic powders*, as I think it best to give as few anodynes as possible. This article seems to act on the skin without increasing the fever, while it imparts a more healthy tone to the digestive organs—indications very important to fulfil in the treatment of every grade of *fever*.

From three to five grains may be given three or four times during the day in the form of *pill powder* or *wine tincture:* a cup of catnip or other herb tea to be taken immediately after each dose. From the experience I have had of this root, I entertain a high opinion of its efficacy.

The Kidneys.—When the kidneys cease to perform their offices, or do it imperfectly, the urine is scanty, or much diminished. This fluid is retained, carried into the circulation, and must prove a source of irritation; and hence the necessity of restoring the secretion of them.

Diuretic medicines, therefore, or such as promote a discharge of urine, must be administered; and it will be found that, as the urine begins to flow freely, there is diminished arterial excitement. It is the case, that fevers and other inflammatory diseases are brought to a favourable termination by a spontaneous discharge of this fluid.

An infusion of spearmint possesses a remarkable diuretic property, and it may be drank freely. It not only acts upon the kidneys, but likewise upon the skin, and often allays nausea and irritability of the stomach.

The Lungs.—The lungs is an organ to which strict attention must be paid. It is the *primum mobile*, or main-spring of the system; its office being to supply it with the vital principle. If this is withheld, or if they absorb impure air, the fever is exasperated. It is, therefore, necessary to place the patient in a large well-ventilated room.

The method of suppressing fevers by this means was practised by the ancients: they exposed their patients to cold air, and gave them cold water to drink. Fresh air is very salutary to a person in a fever; it removes his anxiety, cools the blood, revives the spirits, and is in every view beneficial. There ought, therefore, to be a constant stream of fresh air in his chamber, so as to keep it moderately cool. Air that has been repeatedly breathed, when the blood is inflamed or the humours are in a putrid state, becomes unfit for respiration, and acquires a noxious quality.

The lungs also become affected by sympathy; and where this is the case, irritation and cough succeed. Under such circumstances, expectorants must be given.

Local Treatment.—Attention must be paid to particular symptoms, such as soreness of the throat, pain in the head or other parts, from congestion, or an unusual quantity of blood thrown upon some other organ; for sickness at the stomach, &c

The Surface.—A tenacious, viscid, perspirable matter is deposited upon the surface of the body in febrile diseases, which dries upon it, and becomes an additional means of keeping the pores closed or obstructed. The usual moisture being gone, as before-mentioned, a preternatural degree of heat is generated, which creates great distress and protracts the fever. This state of the system obviously points out the propriety and necessity of *bathing the surface* very frequently: it removes everything which obstructs perspiration externally, by relaxing the cutaneous vessels, and, by the evaporation which follows, diminishes the temperature of the body surprisingly. Nothing is better for this purpose than warm water with ley added.

According to Sir John Chardin, the celebrated traveller, the Persian physicians (devoted followers of the Galenical school) had frequent recourse to bathing in febrile diseases. His own case is a remarkable example of their practice in particular. He had with him a French surgeon, who gave him every assistance in his power during the violent remittent fever with which Sir John was attacked; but, on arriving at Laar, they concluded to send for the governor's physician. The latter, on his arrival, stated the nature of the disease, (the fever of Bender, or bilious remittent,) and, contrary to the gloomy prognostics of Sir John and his professional friend, promised a speedy cure. Chardin called out, "I am dying of heat." "I know it," said he, "but you shall soon be cooled." Chardin says:

"The apothecary, who paid me the most constant attention, then procured two buckets of cold water, and having placed me on a chair, on which I was supported by two men, poured the water over my body little by little, from the haunches downward, and then, taking a large bottle of rose water, bathed, in the same manner, my head, face, arms, and breast. I blessed, in my heart, the Persian practice of medicine, which treated sick persons so voluptuously! But our French surgeon, who was always by me, could not contain his indignation. 'The man is killing you, sir,' said he to me, in a compassionate tone. 'What! *bathe* you with cold water in the heat of a malignant fever, with a pint of emulsion, two pints of decoction, and a pound of confection in your belly, with I do not know how many draughts of snow water. Depend upon it,' added he, 'that, instead of being very soon without fever, as he has promised you, your death will be the end of the business.' 'I do not know what will happen,' answered I, 'but at any rate I do not feel as if I were about to die, as you suppose.' Indeed, at that moment I felt the heat within me diminish, and my senses return; upon which, my apothecary, having felt my pulse, said, 'your fever is abating.' It went off from that time so quickly, that by one o'clock in the afternoon I was quite free from it, even in the opinion of the French surgeon. He was quite astonished, and I was transported with joy. Purgatives were also administered."

I recollect attending a girl many years ago for typhus fever, where I ordered the nurse, in connexion with other means, to bathe the surface at night thoroughly with rain water mixed with ley.* I called in the morning,

* It is very necessary that *ley* should be added; first, because the nature of the perspirable matter is such, being very greasy or oily, and being so tenacious and viscid, that it appears almost to cement or close the pores; or, at any rate, it adheres so closely to the surface that simple water will not effectually remove it. Ley, by its cleansing and purifying properties, completely removes it. Secondly; it not only cleanses, but appears to soften the skin, and invites perspiration by its stimulating or relaxing nature. I have applied various liquids, such as spirits, vinegar, &c., but the skin is not left in the same state. Even pearl-ash water will not leave the skin so soft and moist. Besides, it seems more caustic and heating in its effects. Ley should be used which has been well leached, as it

and found that the skin was very dry, parched, and shrunken, and heat great. I expressed my disappointment, and asked her if she had followed my directions; she replied that she had: (a falsehood, by the by:) I could not, however, account for the symptoms, for I had never, in all my practice, been deceived in regard to the happy effect of this process. I, however, directed the same medicine to be given through the day, and the surface to be bathed at night, as before directed. In the morning I again called, and found my patient just as I anticipated the day previous, in a fine perspiration; skin cool; arterial excitement, and, of course, the heat diminished, and all the symptoms manifestly better.

The woman or nurse then had the candour to acknowledge the deception she had used. She said that she had not, as she before stated to me, bathed the surface the first night, as I directed it, from a supposition that it was too simple to do any good; but that the preceding night she had strictly followed my directions, and had applied the liquid freely over the whole surface of the body; and the consequence was, as before intimated, a remarkable change for the better. Thus we see, from this circumstance, first, the folly and criminality of refusing to administer medicine because it is apparently simple; and, secondly, the reprehensible conduct of those nurses who pretend to be wiser than the physician.*

The Feet.—Every one knows that fevers are often occasioned by the application of cold to the feet, which drives the blood from the extremities and throws it upon some organ, or retains such agents as ought to be eliminated, in consequence of which fever takes place. Now, it must be evident that there is no better method of preventing the consequences than by recalling the blood to the feet and surface, thereby preventing and removing fever, by bathing the feet in warm water, to which a small quantity of ley has been added.

I am persuaded that bathing the feet immediately after exposure to wet or cold, in nine cases out of ten, will prevent an attack of fever, aided by drinking freely of warm catnip or other tea, and then covering warm in bed.

Medicine.—All violent medicines are to be avoided in fevers, such as antimony, mercury, or any other mineral whatever; also blood-letting. Nature attempts to do her office placidly and quietly in these cases, and such medicines violently disturb her motions, and often bring on mischief which she, if left entirely to herself, would wholly avoid.

Rest and Quietude.—Lassitude or heaviness is generally the consequence of a recent fever; and this symptom evinces the propriety of keeping the

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appears to acquire new or different properties by the oxygen which it imbibes from the atmosphere.

Not only so; I am inclined to think that the momentum of blood is diminished by the sympathetic effect produced by stimulating the cuticular vessels of the surface. It certainly must effect the internal organs of the system directly or indirectly, from the fact that, if one function is deranged or healthy, there is a correspondent effect in others.

* The following circumstance, in relation to this subject, will show how easily any improvement can be introduced when it is sanctioned, or supposed to be sanctioned, by high authority. One of the graduates of our school, on his way home to West New Jersey, was taken ill of a fever in Philadelphia. He gave directions that the whole surface should be repeatedly bathed, which was attended with the most salutary effect. Those who attended him, however, were not aware that he was a student of our school; and the treatment, therefore, was taken up by a physician near the city, who, by some means, had heard of the effects of it; and, supposing that it was sanctioned by the medical faculty of Philadelphia, commenced the same process of bathing the surface, with decided benefit, in every case of fever under his care. Now, had he known the source from which it originated, he probably would have rejected it, because not sanctioned by different, or orthodox authority.

patient easy, and, if possible, in bed: lying in bed relaxes the spasms, abates the violence of the circulation, and gives nature an opportunity of exerting her whole force to overcome the disease. The bed alone would often remove a fever in its early stage.

"The patient," says Dr. Fordyce, "is to be confined to his bed, where unnecessary exertion is avoided, and the heat is equable over the whole body The bed-chamber is to be large, and heated, when necessary, by fuel burning in an open fire-place; or cooled by sprinkling the floor with infusions, vinegar, or distilled waters of some of the aromatic herbs."

It is of the utmost importance that the patient lay upon a straw bed or mattress, as a feather bed increases the fever.

The Mind.—If the patient's spirits, in a fever, are low and depressed, he should not only be supported, but every method should be taken to cheer and comfort his mind, by conversing on subjects that are pleasant and agreeable, and cautiously avoiding every syllable that may create uneasiness Everything, indeed, that disturbs the imagination promotes the disease. In fevers every patient ought to be kept perfectly quiet, and not be permitted to hear or see anything which might discompose the mind.

Drinks.—We have already hinted at the propriety of taking freely of diluent drinks, and this should by no means be neglected. Such kinds may be given as are pleasant and agreeable to the person, and such as are calculated to keep up a moisture of the surface. Many of those kinds already used in domestic practice are very good, both in this and other countries.

Cold or cool water may be taken at proper intervals and in proper quantities when the heat of the body is uniformly above the natural standard, or when there is no chill or sensation of coldness. There has ever been a very popular prejudice against the use of cold water in fevers, and which ought to be put down. There are few articles in the whole materia medica which exert such an immediate and salutary effect in fevers as cold water; but too great a quantity should not be taken into the stomach at a time, as it sometimes overloads it and causes mischief. There are thousands of instances on record where nature has pointed out the cure by creating in the mind of the febrile patient an irresistible desire for draughts of cold water, and, when drank, it has been followed by the happiest effects; by a remission of all the symptoms. Celsus directs large draughts of the coldest water in ardent fevers, and dwells with emphasis on the highly beneficial consequences of it. "The patient," says he, "falls into a sound sleep, the heat remits, and a free perspiration ensues, though he had previously suffered much from thirst, heat, and restlessness."

Vegetable acids are discarded by some as injurious, but without foundation. They moderate thirst, allay heat, and are very grateful and pleasant to the patient. Nothing of the kind is better than *lemonade*, which may be freely taken after the skin has become properly relaxed or perspiration takes place. Buttermilk mixed with water is a very nourishing and cooling drink.

General St. Clair, who was once a physician, was wont to cure the scarlet fever by causing the patient to drink several times each day of buttermilk, moderately acid, and as much of buttermilk whey as the patient could take. This rarely, if ever, failed of a cure.

Regimen.—The dictates of nature must be followed as regards food or regimen in fevers; though the patient has the greatest inclination for drink, yet he seldom has any appetite for solid food; hence the absurdity of urging him to take victuals: much solid food in fever is very injurious; it oppresses the stomach, and, instead of nourishing the patient, serves only to

increase the disease. The food that is taken must be vegetable, very light, and easy of digestion. It should consist chiefly of panado, thin gruel, roasted apples, &c.

Ripe fruit of every kind is excellent, such as apples, oranges, grapes, &c.

Cravings.—Particular attention should be paid to the cravings of a patient. They are often the calls of nature, and point out the remedy.

They are not to be indulged in everything that their capricious appetites may desire; but when any particular article is eagerly desired, it may be given, although it may seem not altogether proper.

Convalescence.—Few are aware of the danger of a relapse in fevers. The lives of thousands have been lost for the want of proper care on recovering from a fever. The stomach and body is extremely weak, and hence will not bear much food or exercise, and in which convalescent persons are very liable to indulge.

Nursing.—In vain will the best medicine be given without a proper nurse or person to administer it, and to attend faithfully to every duty of her office or business. It is very seldom that we find a good nurse as profitable and as important as the profession is. Some are ignorant, some careless and inattentive.

I know not but that I may say, that more depends upon a good nurse than upon the physician. It is the duty of the nurse to punctually administer the medicine prescribed, according to the directions given, (except they *know* it is poison,) and not to cheat the practitioner by throwing it into the fire, and then give their own nostrums or some others, and, when interrogated respecting it, dissemble and lie by *affirming* that it *has* been given. The practice is very reprehensible, no matter what kind of practitioner attends the patient. Let the physician be discharged, or follow his prescriptions.

It is the duty of the nurse to pay strict attention also to the wants of the sick, to the medicines, drink, diet, &c., that they be given in right quantities and at a right time; that the clothes of the patient and his bed be often changed and kept clean: also, that everything offensive be immediately removed. Let the room be kept well ventilated, clean, and quiet.

It is not her duty to dictate and pretend to know more than the person who prescribes, nor to suffer a dozen gossips, or women, to associate together, and recommend new doctors, patent medicines, nostrums, &c., or to make use of any language calculated to excite distrust, unnecessary alarm or fear in the patient or friends. Great mischief is often done by such a course of conduct, and all classes of physicians suffer much by it. Nurses who are guilty of such deportment ought to be admonished.*

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* Would it not be a good plan for a number of respectable middle-aged females to associate themselves together, and receive lectures or instructions from an experienced physician or nurse, and, after having become well qualified by theory and practice, to receive a certificate or recommendation from the society?

This would inspire confidence in the public, or in the minds of the sick, and such nurses would command much more respect and better wages.

CHAPTER IV.

INTERMITTENT FEVER, FEVER AND AGUE, OR CHILLS AND FEVER.

(Febris Intermittens.)

DESCRIPTION.

The title of Intermittent, or chill and fever, is applied to that kind of fever which consists of a succession of paroxysms or periods of fever, between each of which there is a distinct and perfect intermission from febrile symptoms.

Different names have been applied to this fever, according to the distance of time observed between the periods of its return; as *first*, *second*, *third*, and *fourth* day ague.

In intermittent fever it is obvious that the balance of circulation is lost in the system, the blood recedes from the surface of the body, and is thrown in an undue quantity, or accumulates, upon the deep-seated organs; and sometimes, when the disease has not been properly treated or cured, irritation or congestion may be the consequence, and so react on the system as to aggravate or continue it. The most superficial observer must be struck with the remarkable retreat of the blood from the skin, and its accumulation upon the internal parts: there is great coldness, showing the absence of the blood, consequently the heat; the skin is pale and constricted, while the heart and arteries and internal organs are thrown into great commotion, and cause a powerful reaction to expel the offending cause; and our duty is clearly evinced, which is, to assist nature in her salutary efforts to restore the circulation, and, by tonics or strengthening medicine, to prevent a return of the paroxysms.

Intermittents often prove obstinate, and are of long duration in warm climates; and they not unfrequently resist the common mode of treatment, so as to become very distressing to the patient, and often give rise to other chronic complaints, but more particularly dropsical swellings and an enlargement of the liver or spleen.

CAUSES.

Marsh miasma, or the effluvia arising from stagnated water or marshy ground, when acted upon by heat, are the most frequent exciting causes of this fever. In marshes the putrefaction of vegetable and animal matter is always going forward; and hence it has been generally conjectured, that vegetable or animal putrefaction imparted a peculiar quality to the watery particles of the effluvia arising thence. It has been ascertained that marsh miasma, when much diluted with aqueous exhalation, as in summers where an unusual quantity of rain has fallen, are nearly inert; but when arising from stagnant waters of a concentrated foulness, in consequence of great drought and heat in the latter end of summer and the early part of autumn, they act with great violence and malignity.

It is found that persons residing constantly in the most healthy part of cities, and far from marshes, are sometimes attacked by them.

Febrile miasma or effluvia may be wafted by currents of air to a distance far exceeding what has been supposed or admitted upon this subject.

This disease may also be occasioned by debility, however induced, by a poor watery diet, damp houses, evening dews, lying upon the damp ground, watching, fatigue, depressing passions of the mind, &c.

When the inhabitants of a high country remove to a low one, they are generally seized with intermittent fevers, and to such the disease is most apt to prove fatal. In a word, whatever relaxes the solids, diminishes the perspiration, or obstructs the circulation in the capillary or small vessels, disposes the body to agues.

One peculiarity of this fever is, its great susceptibility of a renewal from very slight causes, as from the prevalence of an easterly wind, or from the repetition of the original exciting cause. It would appear likewise that a predisposition is left in the habit, which favours the recurrence of the complaint. In this circumstance intermittents differ from most other fevers, as it is well known that after a continued fever has once occurred, and been completely removed, the person so affected is by no means so liable to a fresh attack of the disorder, as one in whom it had never taken place. Sometimes intermittents degenerate into continued fevers, or affect other organs, as the liver, spleen, &c.

SYMPTOMS.

This disease may be divided into three stages, viz.: 1. The cold stage 2. The hot stage. 3. The sweating stage.

Cold Stage.—An intermitting fever generally begins with pain of the head and loins, weariness of the limbs, coldness of the extremities, stretching, yawning, with sometimes great sickness and vomiting; to which succeed shivering and violent shaking: respiration is short, frequent, and anxious.

Hot Stage.—After a longer or shorter continuance of shivering the heat of the body gradually returns; irregularly at first, and by transient flushes; soon, however, succeeded by a steady, dry, and burning heat, considerably augmenting above the natural standard. The skin, which before was pale and constricted, becomes now swollen, tense, and red, and is remarkably sensible to the touch. The sensibility, diminished in the cold stages, is now preternaturally acute; pains attack the head, and flying pains are felt over various parts of the body. The pulse is quick, strong, and hard; the tongue white, the thirst is great, and the urine is high coloured.

Sweating Stage.—A moisture is at length observed to break out upon the face and neck, which soon becomes universal and uniform. The heat falls to its ordinary standard; the pulse diminishes in frequency, and becomes full and free; the urine deposites a sediment; the bowels are no longer confined; respiration is free and full; all the functions are restored to their natural order; when, after a specific interval, the paroxysm returns, and performs the same successional evolutions, generally once in twenty-four hours. Sometimes in this fever there is more or less delirium.

TREATMENT.

Indications of Cure.—The indications of cure in the treatment of intermittents are, first, to put as speedy a stop as possible to the fit when it has taken place; and, secondly, during the intermission to prevent its return at the usual or any after period, both by exciting a new or healthy action in the system, by administering certain remedies at the commencement or immediately before the accession of the cold fit, thereby destroying the morbid action induced by the disease.

In the proper treatment of this complaint two classes of medicines are indispensably necessary; and to the omission of these the failure of a cure must be imputed: first, a tonic; second, a stimulant; and often an emetic. A combination of these breaks up the disease, and renders the cure speedy and permanent.

It is seldom we see a radical cure in fever and ague under the common treatment, or by any of the numerous and costly *nostrums* so highly extolled. But I am confident that the course here laid down will be found infallible, except the disease is complicated with some other affection.

It will be necessary, in treating intermittent fever, first to cleanse the stomach and bowels. A purgative often will be sufficient; but the soonest and the most effectual method of curing the complaint is, to administer first an emetic. The liver and stomach are in a very morbid condition, viscid phlegm and bile being discharged by vomiting. For this purpose give the following: Take *common emetic, two parts; capsicum*, (*cayenne pepper,*) *one part;* of this give half a tea-spoonful, mixed in plenty of water or herb tea, every twenty minutes, till nausea or vomiting takes place. A little *boneset, pennyroyal, chamomile*, or other herb tea may be given to aid the operation. This is to be given before the *cold stage*, and it may break up the disease at once. In cases where the *capsicum* cannot be taken, the *emetic* may be given without it, or half the quantity may be given, sufficient only to cause a little nausea or sickness.*

Emetics not only cleanse the stomach, but increase perspiration, and all the other secretions, which render them of such importance that they often cure without any other medicine.

Should any peculiar temperament, debility or state of the system, render it injudicious to administer an emetic, it must be dispensed with, and a moderate purgative given. Take mandrake, or May-apple root, (*podophyllum peltatum,*) pulverized; cream of tartar, (*super. tart. potassæ,*) equal parts.

Of this powder give an ordinary sized tea-spoonful. Let this be put into a tea-cup or tumbler, and a small lump of loaf sugar added. Add a gill of boiling water, or it may be given in any syrup. Let the whole be taken at a dose. This will cleanse the stomach and bowels, and prepare the system for tonics. Those who prefer, may take the *anti-bilious physic*.

Cold Stage.—Should it be necessary to prescribe at, or just before, the accession of the cold stage, it will be desirable to diminish its force and to lessen its duration; for on this circumstance will depend the continuance or duration of the other stages of the complaint. If suitable means are used to cut it short, the hot and sweating stages will be proportionably short, and often the disease entirely cured. To this end, in addition to the *emetic* or *purgative*, let stimulating and warm teas be freely taken, such as catnip, Virginia snake-root, infusion or tea of boneset and peppermint, all of which are calculated to answer this purpose. The person may be covered with warm clothing, heated bricks may be placed to the feet, and every means used to promote perspiration.

Hot Stage.—As soon as the cold stage is terminated this treatment must be reversed: the bed-clothes must be removed, and, instead of giving warm infusions, cold drinks may be given. Lemonade is very grateful, and par-

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* Every formula or prescription, the component parts of which are not mentioned, will be found under the head of *Pharmacy* or *Compounds*.

ticularly cold water, both of which may be freely taken. This course will allay the febrile excitement.

Sweating Stage.—During this stage warm and cold drinks must be withheld, and those that are tepid given.

Intermission.—During the intermission of the fever such medicines must be taken as will prevent a recurrence of the paroxysm.

Many practitioners rely almost wholly on the salts of bark, (sulphate of quinine,) but there are objections to the general use of this article. Some has been found to contain arsenic, and the use of it has been followed by swelling of the face, spleen, liver, &c. There is another objection. The disease is very liable to recur, upon slight exposure or fatigue: besides, *quinine* is sometimes adulterated. When all other means have failed, I have found the *tonic wine tincture* almost, if not quite, infallible.

The patient will take of this tincture from half a wine glass to a wine glass full every two or three hours during the intermission. This treatment cures in a very short time, usually in one or two days.

Vomiting.—Sometimes in intermittent fever there is great irritability of the stomach; vomiting ensues, and prevents the operation of those medicines that are necessary to effect a cure or to remove it. When this is the case, dissolve one drachm of sal æratus (bicarbonas potassæ) in eight ounces of peppermint water, or, as a substitute, in the same quantity of a tea or infusion of peppermint. Of this give an ordinary sized table-spoonful, sweetened with loaf sugar, every half hour, or as often as vomiting occurs. Should this preparation fail to check the vomiting, (which is seldom the case,) then add to every table-spoonful of it five drops of laudanum, tincture of opium.

Should the above medicines, from debility or any other cause, be rejected, the following may be taken: Take pure salts of bark, or quinine, (*sulphate quinina,*) one scruple; capsicum, one scruple; mix: divide into ten powders. Let one be taken in currant jelly or sweetened water, or any other vehicle, every two hours while the person is free from fever. It is scarcely necessary to state, that these bracing or tonic preparations are to be discontinned upon an accession of the chill.

This course of treatment must be repeated until the complaint is removed.

The intermittent fever sometimes attacks infants and children. When this is the case, the quinine can be administered more easily than any other preparation, particularly in the following liquid form, which deprives it of its bitter taste: Take sulphate of quinine, sixteen grains; loaf sugar, a suitable quantity; water, two ounces; mix. The dose is a tea-spoonful every two hours for a child between two and five years of age.

It is sometimes the case that the chill is almost wholly or entirely removed, but some fever and much debility remain. When such symptoms occur, an *emetic* must be given every two or three days. This will give tone and energy to the stomach, and restore the patient to health. When the chills and fever subside, give a purgative.

Various other medicines have been highly extolled for the cure of intermittent fever, but we have tried most of them with little or no success—such as cobweb, coffee, opium, spiders, spirits, the juice of gourds, &c.

These nostrums should be carefully guarded against.

A lady in South Carolina was recommended to take the latter article namely, the juice of the gourd, which soon proved fatal.

REGIMEN.

In the intermission, or between the paroxysms, the patient must be supported by nutritious diet, such as is easy of digestion. Vegetable food is preferable. He may take infusions of bitter herbs, such as boneset, snakeroot, chamomile, or wormwood. The patient may also take exercise as much as his strength will permit: nothing tends more to protract the intermittent fever than indulgence in idleness. Small quantities of mustard and cayenne pepper may be taken as condiments with food.

Hundreds of cases might be mentioned of the efficacy of the foregoing treatment, many of which had been treated by various physicians without any benefit.

I recently cured a person who had laboured under this disease for two years, and who had been attended for a length of time by a Homoepathic doctor, by the following treatment: I first cleansed the stomach and bowels, and then prescribed the following: Spirituous extract of best red or yellow Peruvian bark, one part; capsicum or cayenne pepper, one part; incorporate or mix well together: a few drops of the oil of cloves may be added. Then form into pills size of a common pea, (which is four grains.) Dose, two or three, morning, noon, evening, and bed-time, in the absence of fever.

In order to prevent a relapse, the same medicine that removes it should be continued for some time, but half the quantity will be sufficient. Night air, fatigue, and a hot sun must be avoided, and proper diet should be taken.

There are few diseases more fully under the control of remedies than this; and yet it is very often badly treated by ignorant and injudicious practitioners, until some of the vital organs become dangerously diseased. Proper care and *diet*, with a little of the wine bitters twice or three times a day, will prevent an attack of the disease.

It is very necessary, in order to effect a cure, that the medicines be genuine. For want of this, the best treatment will fail. What is sold for Peruvian bark is often so very much adulterated that it can be had for ten cents per pound, pulverized; while the best quality, (the red,) coarse, is worth two dollars. The *quinine* is also adulterated; some has been found to contain only one-sixth of the genuine article. It is best to purchase the bark in its crude state, and pulverize it; and when quinine is bought, procure it of a person who may be relied upon. When the Peruvian bark is purchased in powder, the yellow is preferable, as it is unlikely to be adulterated, on account of its being cheaper.

CHAPTER V.

REMITTENT FEVER. (*Febris Remittens.*)

DESCRIPTION.

By a remittent fever is to be understood that modification of fever which abates, but does not go entirely off before a fresh attack ensues; or, in other words, where one paroxysm succeeds another so quickly, that the patient is never without some degree of fever.

CAUSES.

Remittent fever is principally induced, as well as the intermittent, by exhalations from marshy ground or from stagnant water, impregnated with the decaying remains of animal and vegetable substances, and is most apt to arise when calm, close, and suitry weather quickly succeed heavy rains or great inundations. It is very prevalent on the borders of our great lakes, and on the rivers in the western and south-western sec tions of our country. In warm climates, where great heat and moisture rapidly succeed each other, the remittent is a very prevalent type of fever, and often appears under a highly aggravated and violent form, prevailing epidemically. It is likewise often met with in low marshy situations, abounding with vegetation and water, from which miasma or effluvia are consequently evolved; and it most generally attacks those of a relaxed habit, those who undergo great fatigue, and those who breathe an impure air, and make use of a poor and unwholesome diet. Although this fever is produced originally by marsh miasma, and in its simple state is, consequently, not of an infectious nature, still, under bad management, such as crowding too many sick together, and neglecting proper cleanliness and a free ventilation, there cannot be a doubt that it may, in its course, engender a matter capable of occasioning a highly contagious fever.

The remittent fever is the same disease everywhere in the neighbourhood of low, swampy, or marshy grounds, which are subject to be over flowed by the freshets after great rains, or to be *covered occasionally by inundation from the sea*, which cannot be drained by any other means than evaporation by the heat of the sun. Dead fish, left upon the overflowed land, become putrid, and animal and vegetable life destroyed by the salt water in the various insects, reptiles, and the smaller order of animals, and the different vegetable productions which happen to be covered by it, and the noxious effluvia which must arise from such accumulation of putrefaction, produce the worst kind of remittent fevers. It has been shown by travellers that certain marshes on the borders of the Mediterranean receive, and are mixed with, the salt water. The mixture of *salt* and *fresh* water thus formed, and which in summer was rarely changed, became corrupt, and spread *infection* of the most destructive kind over the neighbourhood; and in this way the disease was produced annually, with all its peculiar horrors. One single night in August or September proved fatal to the incautious traveller. This continued till the sea was excluded by gates, which has put a stop to the scourge ever since, and these part are now healthy.

In a narrative of an expedition into the interior of Africa by the River Niger, one of the company thus remarks: "The principal predisposing causes of the awful mortality were the sudden change from the open sea to a narrow and winding river, the want of a sea-breeze, and the prevalence of the *deadly miasma*, to which we were nightly exposed, from the surrounding country. The *horrid, sickening stench* of this miasma must be experienced to be conceived. No description of it can convey to the mind the wretched sensation that is felt before and after daybreak. In these accursed swamps one is oppressed bodily and mentally with an indescribable feeling of heaviness, languor, nausea, and disgust." It is owing to the swamps and rivers in the south and west, charged with vegetable decomposition and putrefaction, that there is so much fever. I saw a letter from Illinois, which stated that nearly all the population on one of the rivers had been swept away by this disease.

SYMPTOMS.

An attack of a common remittent fever is very similar to that of an intermittent. Preceding the attack the person usually feels heavy and languid, anxiety, sighing, yawning, and alternate fits of heat and cold. In the commencement he experiences pain in the head and back, heat of the whole system, thirst, difficulty of breathing, and great dejection of spirits. The pain of the back and legs is very similar to the inflammatory rheumatism. The eyes and skin assume a yellow tinge, pain and a sense of fulness about the region of the stomach, nausea, and sometimes vomiting of mucous or bilious matter. The urine is scanty and of a yellowish colour, and the skin usually very dry and hot; after these symptoms continue for a short time, a gentle perspiration takes place, and the fever abates, or goes off imperfectly, but not so as to leave the patient free from some fever. This remission continues perhaps not more than an hour or two. The fever then commences again as severe as before, and perhaps worse; and, after a short period, again abates and gives place to another remission. In this manner, with accessions and remissions, it proceeds at last to a crisis, or is changed into a fever of a different type. In warm climates the remissions often occur so early as the second day; but in cold ones it frequently does not take place until from the fourth, the sixth, or eighth day.

Sometimes the attack of fever is much more violent in all its symptoms, severe delirium arises, and soon carries off the patient, or the remission is scarcely observable, and is succeeded by another paroxysm, on which all the symptoms are much aggravated. The heat of the system is much increased, countenance flush, thirst very great, tongue coated with a dark brown fur, breathing laborious, and the pulse quick, throbbing, and tremulous. Some time after, another short but imperfect remission occurs, but the fever returns with greater violence, and finally destroys the patient.

That the reader may have an opportunity of witnessing the symptoms of the remittent fever as it occurs in various sections of the United States, and under different circumstances, we subjoin a letter from Dr. Norcum, Edenton, (N. C.)

"The annual remitting fever of Edenton, and the country in its vicinity, usually begins with the month of August, and I have remarked that the most malignant cases always occur in this month, or during the hot weather of September. As the autumn advances and the heat decreases, fevers of every grade seem disposed to assume more and more the character of intermittents, which generally conclude the sickness of the season. The remitting fever with us, as far as I have been able to ascertain, is most fatal in seasons tending to dryness and accompanied with unusual heat. In its character and symptoms it is as various as the circumstances of the climate and season under which it exists. Sometimes persons are seized violently, without any previous indisposition, with a chill, or mixed sensations of heat and chilliness, that last for an hour or two, and are succeeded by a severe fever, with pains in the head and back, a full, hard, quick, and bounding pulse, great thirst, a hot and dry skin, hurried respiration, with redness or a muddy suffusion of the eyes, and a disposition to delirium. The stomach, in this form of the fever, does not seem to be affected with much sickness or nausea; yet vomiting is a frequent occurrence, and it is with difficulty that a patient can retain the least particle of food whatever. A sense of heat or burning is generally complained of, which is very distressing, and occasions everything to be thrown up that is swallowed, if it contains stimulus,

or be in any way substantial. The exacerbations of the fever are oftenest quotidian, returning generally in the afternoon, and the intervals short, with an imperfect remission, without sweating, or any considerable abatement of pain.

Bilious Remittent Fever.—Another form of remitting fever, which is the true bilious remittent of our climate, (continues Dr. Norcum,) comes on with a distinct chilly fit, of greater or less duration, and is succeeded by the ordinary symptoms of fever, with a frequent, full, and soft pulse, such as may almost always be felt in the paroxysm of an intermittent. It is not accompanied with much acute pain, but great aching and restlessness, nausea, or vomiting, with ejections of bile, or matter exhibiting a bilious appearance. The type of this fever is generally that of a double tertian, having an exacerbation one day in the afternoon, the next in the evening. Its remissions are more distinct than those of the inflammatory remittent. It is rarely fatal, and when it is, seldom terminates in less than from ten to sixteen or seventeen days. Toward its close it sometimes puts on the garb of typhus, and does not end in death, or a recovery, in less than from twenty to thirty days. The fever last described is that which we usually meet with, which affects the greatest number of persons at a time, and is the least mortal of any of our continued fevers. Neither the inflammatory nor the bilious remittent is very fatal; the former, however, is much the more so, in the proportion I should suppose of at least three to one. It either ends fatally in from four to eight or nine days, or favourably somewhere between the eighth and thirteenth, but is not unfrequently protracted to a later period: the fatal issue generally occurs early in the disease.

The tongue in the bilious remittent is commonly furred and yellow; the skin likewise exhibits a yellow hue, which increases as the fever progresses: whereas, in the inflammatory remittent, the tongue exhibits the common febrile fur in most cases without yellowness, and the skin is hardly ever discoloured until about the close of the complaint. In two or three instances I have known the surface of the body to turn yellow soon after death from the inflammatory remittent, when not the smallest discolouration had been observed before. The vomiting in one of these fevers, or forms of fever, (which you please,) is different from that which attends the other: in the first it occurs with little nausea or sickness; is seldom attended with bilious discharges; affords scarce any relief, and is always increased by bark and stimulants. In the last it is preceded by great nausea, attended with large discharges of bile, which gives the patient relief."

Discharges of blood rarely occur in either of these fevers; in one or two cases I have seen blood discharged from the gums.

"I am not quite certain that I have ever seen the black vomit in any of our endemic fevers; but a vomiting of black matter of various descriptions is no unfrequent occurrence. In 1799, when we had a true yellow fever in Edenton, I saw the genuine black vomit in several cases; but I do not believe I have ever seen exactly the same thing since, though I confess I have seen perhaps half a dozen cases in which my suspicions have been strongly excited. Hæmorrhages from the nose and gums are occasionally met with in protracted cases ending fatally; and I remember one case of a malignant nature, in which a bleeding from the mouth took place, that ended in death in three or four days. Glandular swellings, so far as my observation has extended, have not been among the characteristics of any of our fevers. In most of the fatal cases of inflammatory remitting fever which have fallen under my notice, the heat of the skin has continued intense until a short time

before dissolution, and the patient has expired in a paroxysm or exacerbation of fever. The bilious remittent, when about to prove mortal in a majority of instances, puts on the garb of typhus, and terminates with the symptoms common in the last stage of that disease."

Congestive Fever.—Says Dr. J. R. Canon: "In the first stage or commencement there are no other symptoms, unless a rare case, than those common to the most of our bilious fevers. There is, as is usual before the rising of the fever, a chill or coolness of the extremities, pulse becomes quick, though generally small. This coolness in the extremities continues, and advances as the pulse recedes. In a short time the pulse is gone; cold, clammy sweat covers all but the chest. In most cases great thirst, stomach irritable, rejecting everything, delirium, restless beyond measure, frequently sighing, hurried respiration, feeling no pain, say nothing's the matter, the arterial action very great, the cold pallid countenance, the great dew drops of death, admonish loudly that dissolution is near, and in a few hours the scene is over. So insidious is its approach, that neither the patient nor his friends become at all alarmed until the pulse is nearly extinct, and the patient cold and awfully restless.

The doctor perceives the patient is insensible to his situation—he has to work almost on a lifeless system. Thus I have found numbers, with all these aggravated symptoms, despaired of by all their friends, and some of them given up and left by the nurse.

For four years your writer has been familiar with this form of disease, and has treated numerous cases, from mild to the most desperate; and he states, most unhesitatingly, that he has not lost one patient where he was the only physician; and more, he has practised eight or nine years, and has had all kinds of fever to which the lower part of Georgia and Florida was incident, without losing, one excepted only; and not more than five or six have died under his care in that time, where he only was administering. During the sickly season he did all that his strength would permit, and for two years past might have had more than two efficient men could have done One has not been lost out of each hundred.

Some will say, 'boasting—exaggeration.' If stating the simple fact be called boasting, let it be so.

I defy the reverse to be proved—yea, I challenge an investigation. The destroying angel has passed over our country: doctor and patient have died; but I am proud to state, among the numerous deaths I have heard of, but one death under botanic treatment has occurred."

TREATMENT.

INDICATIONS OF CURE.

1. Moderate the violence of arterial action, if too great.
2. Remove the tension and obstruction in the capillary vessels of the skin.
3. Cleanse the stomach and first passages, and restore a healthy action of the same.
4. Restore the secretions and excretions.
5. Support the strength of the system.

In order to cure this fever, we must endeavour to bring it to a regular intermission. To effect which, give, when indicated, *emetics.*—Vegetable emetics, in the first stages of the fever particularly, prove very serviceable. They not unfrequently disarm fever of the greatest part

of its violence and malignity, and reduce it comparatively to a simple type, requiring afterward very mild means to effect a cure. Numerous cases might be cited to prove that suitable emetics have arrested the disease; and not only in its forming stage, but after it has become fairly established. The *common emetic* may be given as directed, and occasionally repeated, according to the violence or duration of the disease.

Purgatives.—It will be necessary, after the operation of the emetic, and when the sickness at the stomach has fully subsided, to administer the anti-bilious or mandrake physic. In cases where the tongue is very much *furred* or *coated*, and which is not removed by the use of the *common anti-bilious physic*, I have found *mandrake* very effectual, and the very best purgative. It has a *specific action* on the *stomach*, *liver*, and *first passages;* removes the congested and morbid conditions of these organs more readily than any other agents with which I am acquainted. It seems to fulfil the very indication for which *mercury* is given. I have sometimes given equal parts of mandrake and the anti-bilious physic; the dose of which is a common tea-spoonful of the mixture. If the bowels are very costive, it may be given very soon after the operation of the emetic; otherwise a period of six hours may be permitted to intervene.

This purgative may be repeated every other day, or every third day, without reference to the state of the bowels, according to symptoms and circumstances. The benefit is derived, not so much from evacuating the contents of the stomach and bowels, as by expelling the morbid agents from the system, and by exciting a healthy action of the liver, stomach, and intestines.

Sudorifics.—It is exceedingly important in this, as well as all other fevers, to attend particularly to the skin. This circumstance is lamentably neglected by physicians. Some pay little or no attention to it, but, like Dr. Sangrado, substitute bleeding. It is impossible to treat fever successfully, or to act as a servant of nature, without restoring the obstruction which invariably exists in the capillary vessels. It appears to be the first great effort of the system to fulfil this indication. Such medicines, then, must be given as will have the effect of producing perspiration. The feet must be frequently bathed in warm rain water, to which a suitable quantity of ley should be added: the patient may then take the *sudorific drops*, or *diaphoretic powders*, to be repeated every two hours until perspiration takes place. The infusion of *catnip* must be taken frequently and freely, to aid the operation of the medicine; or a tea made of the holy or blessed thistle. These agents may be occasionally repeated, to continue perspiration: one or two doses generally is sufficient to cause sweating; and when it has taken place, they must be omitted, and given occasionally to continue a moisture of the skin.

They possess anodyne as well as diaphoretic properties. Hence they are useful in allaying the nervous irritation attendant on this type of fever. They may be repeated daily, in the same manner, if the fever does not subside, or the skin is very dry and parched, particularly in the first stages. It is sometimes the case that in the middle and last stages of the fever the drops prove too stimulating; the patient cannot bear them or anything of a similar nature. It then becomes necessary to substitute in their place such medicines as keep up a determination to the surface, without increasing the heat of the body. Under such circumstances *ipecac*, pulverized, may be given, about three grains in the form of pill, powder, or wine tincture, three or four times a day. I generally give a pill or two made up with a little mucilage of gum arabic or molasses, the size of a common pea; it should occasion no nausea: it is *tonic* and *febrifuge*. It is calculated to excite a healthy

action of the stomach and first passages, which are always in a morbid condition, and is often a substitute for the *diaphoretic powders*. Some have objections to these as a constant medicine, on account of the opium they contain. Catnip or other herb tea, warm, may be drank after each dose; it keeps the skin moist, without proving too stimulating. Give also an infusion of *boneset* (cold) through the day, and warm at night.

Bathing the Surface.—Those who are unacquainted with the effects of bathing the surface, cannot appreciate its value, and it therefore must by no means be neglected.

Rain or spring water may be used for this purpose, to which sufficient ley has been added as to render it mucilaginous or slightly caustic to the tongue When the heat is very great, this may be applied over the whole surface. In general, it is best to apply it tepid or moderately warm, but in some cases it proves more serviceable to apply it quite cold. The manner of using it should be as follows: Place the vessel containing the liquid by the side of the patient's bed, then let an assistant or the nurse raise the clothes from the body with one hand, and with a piece of flannel or sponge, dipped in the liquid, thoroughly rub first one side of the surface, from the neck to the feet, with the other. The patient must then be turned upon the opposite side, and bathed in the same manner. This process is invariably attended with a salutary effect. It may be repeated as often as the heat of the system becomes very considerable, until a remission or partial remission takes place This process removes the slimy, viscid, and perspirable matter which is thrown upon the surface, and which assists in obstructing the pores of the skin. It removes the tension and spasm of the capillaries by its relaxing properties. It likewise diminishes the preternatural heat by the evaporation which takes place.

This effusion has been found productive of the most decided good effects in remittent fevers. This should be employed at the height of the paroxysm, when the sensations of heat are violent, the headache severe, and the skin dry. The effects to be observed from the effusion are, an alleviation of the violent symptoms, a tendency to quiet sleep is soon induced, the skin becomes moist, and a distinct remission follows.

Diluents.—Various drinks may be given possessing diluent and diaphoretic properties, such as infusions of *balm*, *slippery elm bark*, *mint*, and *catnip;* but few articles in the whole materia medica are of more essential benefit than cold water. The parched lips, dry mouth, intolerable thirst, and the great heat of the system, all call loudly for the use of this universal diluent liquid. It may be taken freely at all times, except when chills are present. Should it, however, produce any uneasiness or fulness of the stomach, it must be taken in smaller quantities, and repeated oftener. There are an infinite number of cases on record where the free use of water *internally* and *externally* have cured fevers in their forming, and even advanced stages.

Dr. A. Atkinson states that a physician, who had practised physic in Louisiana for forty years, informed him that he had found the mucilage or tea of *slippery elm bark* a very superior remedy for the fevers peculiar to that country, (such as bilious and other;) that he had used little or nothing else for many years; and they generally recovered. He thought no person would die of fever who could procure slippery elm. When we reflect that these diseases irritate, and often ulcerate, the mucous coat of the *intestines*, we must see the utility of administering this *cooling* and *soothing* drink. Nothing so soon reduces inflammation externally, and why not internally?

Lemonade may also be freely drank as a change, except when stimulating

medicines are given to produce perspiration. In such cases it ought not to be taken, except when very warm.

Anodynes.—When the patient is very restless and unable to sleep, ten grains, or a small tea-spoonful, of the *diaphoretic powders* to be taken in currant jelly or any other suitable vehicle. They are less stimulating than the drops before-mentioned, and, to fulfil this indication, answer sometimes a better purpose. They should generally be given at night. These powders not only have the effect of producing sleep, but likewise cause a moisture of the surface.

Tonics.—I have often given tonics in fevers when there was some little remission, but have seen little or no benefit from them. There is one article, however, that may be given with benefit, which combines tonic and diaphoretic properties: Take Virginia snake-root, and add boiling water; to be given occasionally through the day: an infusion of boneset may also be given.

Having spoken of the general treatment of remittent fever, I shall now speak of particular symptoms.

Headache.—There is usually great pain in the head, to relieve which the feet must be frequently bathed in warm water, and the following plaster or sinapism applied to them: Take Indian meal and mustard, equal parts; add vinegar sufficient to form a plaster or paste.

If the pain and heat of the head be great, apply the following lotion: Take spirits, vinegar, and rain water, equal parts; to a pint of which add a tea-spoonful of salt. Let this be repeatedly applied to the head, nearly cold. It is necessary to apply a cap or handkerchief over the head, to prevent a too speedy evaporation.

Sickness at the Stomach.—This symptom is very common, and extremely distressing; to allay which give an infusion of *spearmint*, (*mentha sativa.*) Sometimes the peppermint given in the same manner proves even more serviceable. The same articles bruised and mixed with a small quantity of vinegar, and applied over the pit or region of the stomach, have proved very effectual.

Should not this allay the vomiting, give the *neutralizing mixture;* or a little sal æratus may be dissolved in cold water, and given.

The common soda powders, taken according to the directions printed upon them, will answer very well, if the above articles cannot be procured.

Local Pains and Congestions.—When any particular part or organ is very much affected, apply a fomentation of bitter herbs. Should these not remove the irritation, a mustard plaster may be applied; a little Indian meal to be added, to prevent the flesh from becoming excoriated.

Canker.—If there are aphthous spots in the mouth, or if the throat is sore, let it be gargled with a decoction made of *sage* and *hyssop*, sweetened with honey, to which add a little powdered borax.

Debility or Prostration.—Should there be great prostration of strength, the pulse low, wine whey may be given, pure wine, or wine sling, or yeast.

Cough.—Should there be a cough, demulcent and mucilaginous medicines must be given, a decoction of *hoarhound* sweetened with honey, and such as are mentioned under this head.

Mustard Plasters.—Many apply blisters in this and almost every kind of fever, but I think that they should be seldom applied. They are very tormenting, often produce great excitement, and sometimes mortify. I have occasionally applied them when pain in the head, or any particular part, has been very great; but more recently I have used the mustard plaster in preference; I think it much better in every respect.

The late Dr. Anthony Hunn, of Kentucky, a very aged and learned physician, has written a treatise against the common method of treatment in febrile diseases. He proscribes almost all medicine in a fever, and uses only a blister on the right side, over the region of the liver. The benefit, he says, depends upon the stimulus it gives to this organ. He deprecates the use of the lancet and mercury, after having practised about half a century upon the common or ordinary plan. In very severe cases of fever I have applied them just below the shoulder.

Relapses.—It is of the utmost importance that the patient, as soon as a state of convalescence takes place, should use every precaution to prevent a relapse. His diet should be very spare and principally vegetable, and he should use moderate exercise.

REGIMEN.

The regimen must be adapted to the prevailing symptoms. When there are any signs of inflammation, the diet must be slender and the drink weak and diluting: but when nervous or putrid symptoms prevail, it will be necessary to support the patient with food and liquors of a more generous nature.

The patient ought to be kept cool, quiet, and clean. His apartment, if possible, should be large, and frequently ventilated by letting in fresh air at the doors and windows; it ought likewise to be sprinkled with vinegar, juice of lemon, or the like. His shirt, bed-clothes, &c., should be frequently changed, and all his excrements immediately removed.

When the above treatment has been strictly followed, I have never known it fail of curing this type of fever. I have been called to treat it in its various stages, and have uniformly found the same result from the practice.

I have never found it necessary in any case to give a particle of mercury, or any other mineral, nor to bleed a single patient.

The last two patients I attended for this fever were in a very critical and dangerous situation, but under the treatment here given they both recovered. They were very freely purged, and the surface most effectually sponged with ley water. In one case a coloured man, the nurse, employed as much force as in currying a horse; the amendment was speedy, without prostration.

CHAPTER VI.

INFLAMMATORY FEVER. (*Synocha.*)

DESCRIPTION.

This type of fever is characterized by great inflammation, intense heat, frequent, strong, and hard pulse, flushed countenance, redness of the face, &c. It may be readily distinguished from typhus, by its being attended with symptoms much more inflammatory. It makes its attacks at all seasons of the year, but is most prevalent in the spring. Persons of all ages and habits are subject to it, but more especially those in the vigour of life, with strong elastic fibres and plethoric constitutions. It is a species of fever almost peculiar to cold and temperate climates, being rarely met with in warm ones

CAUSES.

Remote Cause.—This fever may be produced by a variety of causes, but cold is the most common; and it is sometimes likewise occasioned by heat: also by intemperance in eating and drinking stimulating kinds of food and liquid, and whatever else causes plethora. Sudden transition from heat to cold is the most frequent cause of inflammatory fever: exposing the body in a state of perspiration to cold will bring it on; also lying on damp ground, drinking cold liquor when a person is very hot, repelled eruptions, suppressed evacuations, &c.

Proximate Cause.—The proximate cause of this disease is seated in the sanguiferous or vascular system, in the heart, arteries, and capillary vessels. Cold checks perspiration, by which irritating perspirable matter is taken into the circulation, and stimulates the bloodvessels to an undue and increased action.

By reference to Eberle's practice, I perceive that he maintains a similar opinion of the proximate cause of inflammatory fever. He thus observes: "A large proportion of the recrementitious elements of perspirable matter must remain mingled with the blood, (unless speedily removed by the vicarious action of some other emunctory,) and necessarily impart to this fluid qualities which are not natural to it. Most assuredly the retention of materials which have become useless to the system, and for whose constant elimination nature has provided so extensive a series of emunctories as the cutaneous exhalents, cannot be long tolerated by the animal economy with entire impunity. The blood is the natural stimulant of the sanguiferous vessels, and we must believe that its stimulating qualities are naturally in due and harmonious relation with the sensibility and irritability of its appropriate vessels. When, therefore, in consequence of suppressed perspiration, this fluid becomes surcharged with the elements of recrementitious perspirable matter, its natural relations with the heart, arteries, and capillaries will be destroyed, and irritation more or less intense must almost necessarily ensue."

SYMPTOMS.

The attack of inflammatory fever is generally very sudden, commencing with distinct rigours or chills; the patient complains of debility, which is succeeded by dizziness and pain in the head, back, and more or less over the whole body. These symptoms are soon succeeded by redness or flushing of the face; the eyes assume a red and unnatural appearance, and are intolerant to light. There is great throbbing of the carotid and temporal arteries, great restlessness, heat which is intense and biting, thirst, difficult respiration, and sickness at the stomach. The pulse is very full, hard, and quick, compressed with difficulty. If the attack is very severe, or if the fever is not arrested in the beginning, stupour and delirium will intervene, particularly in the latter stages. The mouth, throat, tongue, and lips are very dry, and gradually become dark, the tongue of a scarlet colour at the sides, and furred with white in the centre. Occasionally there is a hæmorrhage or bleeding from the nose; there is sometimes yellowness of the skin, and it is very dry and parched; swelling of the abdomen; the urine is scanty, red, or high coloured; and there is usually constipation of the bowels. These symptoms undergo slight remissions and exacerbations—the first occur in the morning, the latter in the evening.

This fever generally goes through its course in one or two weeks, and often terminates critically, by perspiration, diarrhœa, occasionally a slight hæmorrhage from the nose, or a deposition of much sediment in the urine. The crisis is generally preceded by some change in the pulse. Sometimes it runs into typhus, particularly after mal-practice or bad management, such as copious blood-letting, mercury, &c.

TREATMENT.

Indications of Cure.—From the character of inflammatory fever, it is obvious that our first attempt should be to diminish inflammation, and thereby prevent the mischief that may arise from it.

Remedies.—To fulfil this indication, it is necessary to deplete the system, not by blood-letting, which will often bring on typhus and other serious consequences, but by promoting all the *secretions* and *excretions* of the system. This is the only proper method to reduce inflammation of any kind. The course pursued by physicians of the day protracts the complaint, injures the constitution, or endangers the life.

Bleeding, so strenuously insisted upon, suddenly or subsequently "prostrates the system into a state of collapse or debility, out of which the most potent stimulants will be hardly sufficient to raise the patient."

Lieutaud, physician to Louis XV., in his synopsis of medicine, thus remarks on blood-letting in inflammatory fever:

"Repeated bleedings," as the illustrious Van Sweiten remarks, "are apt to bring on more vehement symptoms, or convulsions themselves, as has happened in my own observation, even before the flow of blood was stopped. It is best, therefore, to avoid them, notwithstanding what some practitioners adduce to the contrary, who are used to accommodate themselves to the whims of the bystanders, and are never deterred by the unhappy event of things, so long as they can keep the confidence of the sick. Here, by the by, we may note that they shamefully mistake who persuade themselves that, by blood-letting, they answer the end of spontaneous and critical flows of blood, because it has been observed a hundred times that in every disease a certain critical hæmorrhage is of more service than frequent blood-letting: besides that, a hæmorrhage in this species of fever is for the most part dangerous."

"I remember," says Eberle, (a strenuous advocate for blood-letting,) "with pain, the unfortunate lot of an amiable and intelligent friend. He was a man of a healthy constitution, and fond of indulging in the pleasures of the table. He was seized with simple synochal fever from cold. His physician bled moderately; the fever went on unchecked; he bled again and again daily; after the seventh bleeding there was still too much quickness and tension in the pulse; the lancet was inserted the *eighth* time, and the patient almost immediately sunk into a state of collapse. Stimulants, both external and internal, the most diffusive and potent were now diligently applied, but all in vain; he lived but a few hours longer."

"In Italy," says the same writer, "the most violent inflammatory fevers are treated, and, according to the published reports, with success, by large and frequent doses of antimony, without any direct depletion whatever." By this statement alone it is evident that this fever can be treated successfully without any bleeding, and even by a very inferior remedy.

I shall now lay down the course of treatment to be pursued in this variety of fever; and the first medicine to be given, whether there be costiveness or not, is our common *purgative*.

Of this powder give a common tea-spoonful (about one drachm) in molasses, currant jelly, tea, or any other convenient vehicle, every two hours, until free purging is produced. Any warm tea will aid the operation of it. This will lessen the heat, lower the pulse, remove the pain of the head and other parts. After the effect of this has fully subsided, let *sudorifics* be administered. The sudorific or sweating drops may be given every two hours in a tumbler of *catnip* tea, until the patient perspires freely.

In the next place let the whole *surface* be well bathed with tepid alkaline wash, (weak ley,) and let it be repeated three or four times within twenty-four hours, or as often as the skin becomes dry and parched. The very first bathing generally removes that biting heat usually attendant on this fever. It diminishes pain and arterial excitement, and, by its stimulating effect on the capillary vessels, promotes perspiration, and, in short, has a salutary effect on the whole system.

Farther, to equalize the circulation, let the *feet be well bathed* in the above mixture of ley and water; after which let a sinapism or a poultice be applied to the soles of them, made of Indian meal and mustard, mixed with vinegar. Should there be great pain in the head, let it be bathed with equal parts of spirits, rain water and vinegar, to which must be added a small quantity of salt. It will be necessary also to give *diluent drinks or infusions*. An infusion of *catnip* is excellent; also an infusion of *elder flowers:* cream of tartar water may be occasionally drank; it is refrigerant or cooling, laxative, and acts upon the urinary organs. A writer on this fever has the following remarks:

"Almost every person in a fever complains of great thirst, and calls out for drink, especially of a cooling nature. This at once points out the use of water and other cooling liquors. What is so likely to abate the heat, attenuate the humours, remove spasms and obstructions, promote perspiration, increase the quantity of urine, and, in short, produce every salutary effect in an ardent or inflammatory fever, as drinking plentifully of water, thin gruel, or any other weak liquor of which water is the basis? The necessity of diluting liquors is pointed out by the dry tongue, the parched skin, and the burning heat, as well as the unquenchable thirst of the patient.

In inflammatory fevers, where the thirst is great, the following forms a grateful and cooling beverage: Take cream of tartar, (*supertart. pot.*,) half an ounce; white sugar, q. s.; hot water, three pints. Half a pint or more may be drank as occasion requires.

There is usually great restlessness and wakefulness, and it is, therefore, necessary to give an anodyne, combined with a diaphoretic medicine. To fulfil this indication, nothing is better than the *diaphoretic powders;* they procure refreshing sleep, and at the same time promote perspiration. Ten grains may be given every night in any suitable vehicle. These medicines must be repeated until the fever terminates or subsides; or the ipecac pills or powders may be given three or four times a day.

If it is very violent, a purgative may be administered every day, and at farthest every other day. Sufficient of the diaphoretic powders must also be administered, to keep up a gentle perspiration.

After this course has been pursued two or three days from the accession of the fever, should the pulse continue tense and full, give the *tinct. of fox glove*, (digitalis.) Fifteen drops may be taken three times a day, in a tumbler of an infusion or tea made of *balm* or *catnip*. An infusion or tea of the *holy* or *blessed thistle* may be freely drank. This herb is in great repute as a *febrifuge*. Fox glove, given in the form of infusion, possesses the power

of *reducing vascular action and lessening general excitement*. It diminishes the irritability of the system, increases the action of the absorbents, and also the discharge of urine.

Ferrier considers *digitalis* a substitute for the lancet in all diseases. "It is well known," says he, "that bleeding is very inadequate to the purpose of lessening the velocity of the circulation, unless it be carried to a dangerous excess. The fox glove furnishes us with the means of regulating the pulse to our wish, and of supporting a given state of velocity as long as we judge it proper."

REGIMEN.

The patient's diet must be very little and very light. Nutritious liquids should be given, such as Indian meal gruel, panado, toasted bread water. Ripe fruits, roasted apples, currant jelly, &c., may be given; but nothing of a heating or stimulating nature should be allowed, except there be great prostration in the latter stages of the complaint; wine sling and wine whey may then be given. Fresh air must always be admitted to the patient, using due precaution that a current of air be not permitted to reach the patient; it must be broken by curtains or window-blinds.

The patient must not be loaded with bed-clothes, under pretence of sweating him or preventing him from taking cold; such a practice increases the fever, debilitates the patient, and retards, instead of promoting, perspiration. The patient may be allowed, if the strength will permit, to sit up in bed; or, if not able, let his head and shoulders be elevated by means of a chair.

Cleanliness must be regarded. The chamber may be sprinkled with vinegar. The patient's mouth should be often washed with a little wine and water, or equal parts of vinegar and water, sweetened with honey. The forehead, temples, and hands may be frequently bathed in vinegar; this is very refreshing and grateful to the patient.

All noise and disturbance should be avoided, and the patient kept as quiet and still as possible. Persons should not be suffered to be in the chamber talking and whispering; it disturbs the mind by creating fears and suspicions. Let there be few attendants in the room. Should there be a great desire for any particular kind of drink or food, it may be given.

Convalescence.—There is great danger of relapse when the patient becomes convalescent; the appetite becomes keen, and the patient is very apt to indulge it, by overloading the stomach; the digestive organs being weak, a relapse is brought on, which very often proves fatal: little should be ate at a time, and that ought to be very light and nutritious. If the appetite should not return, an infusion or tea of *chamomile* or *Virginia snake-root* may be drank occasionally through the day.

Fresh air, gentle exercise, and the moderate use of good wine will greatly contribute to the recovery of convalescents.

The depletion or evacuation induced by this treatment will be found quite sufficient: it will generally cure the fever in a few days, without any of those injurious effects consequent on the common practice.

CHAPTER VII.

SIMPLE CONTINUED FEVER. (*Synochus.*)

DESCRIPTION.

This fever was formerly known and distinguished by the name of "Long Fever." A combination of inflammatory or synochal, and typhoid or putrid symptoms, constitutes simple continued fever. An inflammatory type preponderates in the commencement, and nervous or typhoid in the latter stages.

CAUSES.

Cold is the most frequent cause of this as well as other types of fever. It may also be occasioned by a morbid condition of the biliary organs, stomach, and alimentary canal.

Whatever has a tendency to debilitate the system, may act as a predisposing cause of continued fever. Hence we find it arises from great exercise or fatigue, violent exertions, intemperance, and certain kinds of diet, as well as too great indulgence in sensual pleasures. It may likewise be produced by the suppression of some customary evacuation, certain passions, &c.

The most prolific cause is the application of cold to the system, producing a check of perspiration. It would appear that much depends upon the peculiar nature or circumstances of the cold itself, as well as the person to whom it is applied, the degree or intensity of cold, the continuance of it, manner of its application, its being accompanied with moisture, also a sudden transition from heat to cold. It may be occasioned likewise by breathing vitiated or contaminated effluvia, directly or indirectly from the body of a person labouring under the disease.

The peculiar gas or excretions proceeding from a diseased person floats in the air, and, being inspired or inhaled, is capable of generating this kind of fever. It is well known that human effluvia, or the effluvia arising from the human body, if concentrated, and is not permitted to mix with the air, and thus become diluted from want of cleanliness and free ventilation, is sufficient to create a fever of great malignity, and, when taken into the system, actually creates a specific disease. This is unquestionably the case in typhus. Emanations from animal and vegetable substances, in a state of decomposition or putrefaction, may also cause this fever. Marshy, or that kind of soil the bottom of which is clayey, and which retains for a great length of time an unusual quantity of water, being acted upon by heat, emits or sends forth noxious effluvia, which proves a prolific source of fever of various types and grades.

SYMPTOMS.

The first symptom of this fever is a considerable degree of debility, inactivity, heaviness, yawning, and stretching; a sensation of cold is now felt in the back and over the whole system, which increases till a regular chill over the whole body succeeds. There is nausea or vomiting, little or no taste

in the mouth, oppressed and frequent respiration, pulse increased, and there is some confusion of intellect. After a short time the cold stage, which is characterized by these symptoms, decreases or becomes less violent, and is alternated with flushings, and finally subsides, and is succeeded by a preternatural degree of heat diffused over the whole system; there is redness of the face; also a dull, heavy, or throbbing pain in the head; oppression at the chest, and sickness at the stomach; the skin is dry, hot, and parched, with some degree of colour or redness; the pulse is full and frequent, beating perhaps a hundred strokes in a minute; the patient complains of great restlessness; is fretful, and manifests some confusion of mind. The tongue, which is at first white, gradually loses this colour, and as the disease advances it becomes dry and dark. The urine is usually scanty and high coloured, sometimes pale; there is likewise great thirst and costiveness. If the attack is very severe, there is a great determination of blood to the head, which causes delirium. In this and other kinds of continued fevers there is usually an increase of all the symptoms toward evening.

These symptoms generally go on about a week without any particular change, except very slight remissions and exacerbations, which take place in the morning and at night. As the disease advances, however, it becomes more seated, unfavourable and dangerous in its character. The inflammatory symptoms in a considerable degree subside, and typhoid symptoms manifest themselves, or great prostration, attended with delirium, lethargy, furred dark tongue, fetid breath, sordes about the teeth, hurried respiration, starting of the tendons, picking at the bed-clothes, &c. The pulse grows weaker and smaller, and the fever proves fatal in two or three weeks.

The typhoid stage often commences as early as the fourth or fifth day, and sometimes sooner.

This is the ordinary course of the disease, except when it declines under a favourable crisis, which is usually in about a week.

There is a modification of all these symptoms; sometimes the attack is light, and the fever soon subsides; at other times it is very severe.

The simple continued fever terminates invariably by a regular crisis, by vomiting, purging, or sweating, or by the morbific or febrile matter falling on some organs, which excites inflammation and abscess, or proves fatal.

TREATMENT.

INDICATIONS OF CURE.

1. Lessen arterial excitement.
2. Restore the secretions and excretions.
3. Equalize the circulation.
4. Remove local congestions.
5. Expel from the system the sources of irritation.

All these indications will be best fulfilled by the means recommended under the head of remittent and inflammatory fevers, particularly the former. In the commencement and first stage, particularly if there be nausea, administer an *emetic*. It exerts not only a powerful and salutary influence upon the stomach and neighbouring organs, but likewise upon the whole system, the skin and other excretory organs, and sometimes brings about a revulsion After the operation of the emetic, give the *common purgative*.

These two classes of medicine are indicated from the morbid condition of the stomach and alimentary canal. The purgative must be occasionally

repeated through the course of the disease, either daily, every other day, or once in three days at farthest. The *surface* and *feet* must be frequently bathed with tepid ley water. The repeated ablution of this liquid is admirably calculated, as before stated, to arrest the febrile course, to moderate excessive heat, and to restore a healthy action of the skin. As often as the skin becomes dry and parched, the surface must be well bathed. It is necessary also to give *diaphoretic* medicines, in order to keep up a moisture or a constant determination to the surface. For this purpose give the *diaphoretic powders*, particularly at night. They will lessen pain and restlessness, procure sleep, and diminish arterial excitement; ten grains may be given at night in syrup or currant jelly, to be accompanied with the free use of an infusion of *catnip*. The ipecac pills or powders may likewise be given.

It will be necessary, as in other types of fever, to administer *diluent drinks*, such as infusions or teas of *balm*, *spearmint*, *blessed thistle*, and *Virginia snakeroot*. If the patient is not in great perspiration, cold water, cream of tartar water, and lemonade may be freely drank.

Acidulated drinks are very refrigerant and refreshing.

Tamarind water may be taken, as also the juice of oranges and ripe fruits.

Attention must be paid to local congestion, or pains in any particular parts of the system; for such symptoms let *fomentations* be applied

Hops, *tanzy*, and *wormwood* may be simmered in equal parts of water and vinegar, enclosed in flannel, and applied to the abdomen, or any other part where there is pain or congestion. Let them be applied warm, and often changed: for the pain in the head, apply a *mustard* poultice to the nape of the neck and to the soles of the feet.

The only method to obviate the subsequent stage of prostration and typhus is, to subdue the inflammatory symptoms in the commencement, which is most easily effected by the treatment here laid down.

The practice pursued, of bleeding or reducing the system, to accomplish this, is exceedingly dangerous. It has a manifest tendency so far to weaken the tone of the system, that there is not sufficient strength left to combat the succeeding stage, which is invariably one of great debility. Thousands are annually swept off for want of this precaution.

It is of the greatest importance in the latter stages of this complaint, when the system becomes exhausted, to keep up the strength of it, by nourishing liquids and diet. *Wine* may be given pure or mixed with water, if the stomach will bear it. If it is attended with any putrid symptoms, a wine glass of good *yeast* may be given four or five times through the day, in any manner that can be most conveniently taken.

Should the stomach become irritable and reject purgatives, injections or glysters may be given, composed of a decoction of catnip or mint, one pint; milk, half a pint; molasses, one gill; sweet oil, half a wine glass: mix.

Should a cough be present, such medicine must be given as is calculated to allay it; for example, an infusion of hoarhound (*marrubium vulgare*) and hyssop.

REGIMEN.

Nothing heating or stimulating should be taken in the first stages of this complaint. The diet should consist of panado, Indian meal gruel, barley and toast water, rice water, stewed fruit, and, in the latter stages, light boiled rice, raw egg and wine where there is great debility, oysters or oyster soup

CHAPTER VIII.

TYPHUS OR NERVOUS FEVER

CHARACTER.

The word *typhus* is derived from a Greek word, which signifies stupour, this being the characteristic symptom of the disease. It is also called *nervous fever*, in consequence of the nervous system being very much affected. There are three species of this fever: One is called *typhus mitior*, being the mildest, and the attack more gradual. The second species is named *typhus gravior*, in consequence of its being more violent in its attack, more malignant, and discovering in its character more putrescency. It is also called *putrid fever*. The third, *typhus icterodes*, or *yellow*, in consequence of bile and yellowishness.

SECTION I.

SLOW, NERVOUS, OR TYPHUS FEVER. (*Typhus Mitior.*)

DESCRIPTION.

The slow or nervous fever is distinguished from other kinds of fever by its effects on the nervous system. It is a peculiar form of fever, which may be spread by contagion, characterized by a torpid state of the *brain* or great lethargy, with great prostration of muscular power, and more or less delirium. It principally attacks those of a weakly constitution, and is generated in jails, hospitals, prison ships, and ill-ventilated apartments of the poor, and in damp, dirty cellars, cities, and large towns. In a number of persons exposed to the contagion of typhus, some, although rarely, are attacked on the third or fourth day; others on the thirteenth, and some not under three months: but the most common period of an attack after an exposure, is, from the end of the first week to the middle of the third.

CAUSES.

Typhus fever may be produced by whatever depresses the spirits or impoverishes the blood, by certain passions, watching, intense study, the use of poor diet, or unripe fruits of any description. It may likewise be produced by bleeding, mercury, and other minerals; by moist, close, or impure air. Hence it is more prevalent in wet weather, and proves most fatal to those who live in small filthy houses, narrow and dirty streets, hospitals, jails, and manufacturing or large towns. It generally attacks those who have been frequently bled and have taken mercury, and those who lead an irregular and licentious life, or whose constitutions have been broken from any cause whatever. It is occasioned from sudden transition from heat to cold, getting the feet or clothes wet, lying upon the damp ground, great fatigue, or bodily exercise. These are all predisposing causes; but the most frequent of all is infection or contagion communicated through the medium

of an impure or heated air, by concentrated noxious effluvia arising from the body of a person labouring under the disease;* and although it may not be contagious in the commencement, or under proper regulations, yet it may become so from the want of ventilation, treatment, &c. Other fevers, as before intimated, sometimes degenerate into typhus. This fever occurs sometimes in warm climates, but more generally in those that are cold and temperate, often in cold, wet autumns.

SYMPTOMS.

Typhus fever usually commences with a great degree of mildness in all its symptoms. It is generally preceded by slight indisposition for several days, succeeded by rigours or chills, debility, sighing, and oppression in breathing, with nausea and loss of appetite; with a certain unpleasant, uneasy sensation in the pit of the stomach. The countenance is pale and dejected, the eyes are dull and heavy, and there is often tremour of the extremities, sense of weariness both mental and corporeal. Toward evening there is some increase of these symptoms. In the course of a few days, as the disease progresses, there is oppression in the chest, pain in the head, giddiness, confusion of intellect, and great depression of nervous energy. There is sometimes a sinking or fainting, particularly when the patient attempts to sit up; the tongue is dry, at first white, and afterward coated with a dark brown fur; also the teeth are incrusted with the same, yet the patient seldom complains of thirst. There is a small, low, frequent, and irregular pulse; a cold, unnatural, and clammy perspiration breaks out upon the backs of the hands, while the inside of them is hot; the skin is dry and constricted, and all the excretions diminishes; the bowels are usually costive; intellects grow more confused; the patient becomes fretful, restless, and watchful; the countenance more anxious and dejected; urine scanty and high coloured, or is pale and watery; sometimes there are catarrhal symptoms, with a short, dry cough; there is pain in the back, loins, and extremities, with a sense of soreness over the whole body; sleep disturbed and unrefreshing; the functions of the brain become more and more disordered; there is more or less deafness; delirium increases; indeed body and mind seem, as it were, almost paralyzed. The patient has a great aversion to exercise, as well as to conversation. This stage of excitement generally continues about a week, when it terminates in a stage of prostration or great debility. The inflammatory symptoms subside, and a great weakness and sinking ensues. The body emaciates rapidly, and if the disease is suffered to progress, it daily assumes more formidable and unfavourable symptoms; there is fluttering; a very weak and intermitting pulse, with startings of the tendons, hiccoughs, &c. There is also, in violent cases, some eruptions on the surface, a peculiar hollow

* Dr. Haggarth, who devoted considerable attention to the consideration of the contagious nature of typhus fever, and the manner in which it is propagated, has deduced therefrom a variety of important facts, of very great importance for the prevention of misery and the preservation of human life; whence he concludes that it may be easily and certainly prevented by *ventilation*, (in large, airy, and clean rooms,) or by *separation*, (into our hospitals, or into an adjoining room of the same house, where practicable,) or especially by cleanliness, which entirely destroys the poison, wherever it can be completely accomplished.

Wedekind states that, during the campaign of the French against Russia, the typhoid contagion, which was generated in the hospitals and houses crowded with prisoners, and which was communicated to the inhabitants along the road by which the soldiers returned, afterward spread gradually from the road-side to the adjacent districts, until the disease became widely prevalent.

sound of the voice, and a swelling and tenderness of the abdomen or bowels. The later stages of fever are also attended with diarrhœa, the discharges being very fetid, watery, and acrid. There is also generally so much lethargy that it is with difficulty the patient can be aroused.

There is sometimes one very prominent symptom in this complaint, at which I believe I have not hinted, which is a very unequal circulation. It is common for the temperature of one part of the body to be about natural, while another part is unnatural. Again, it is very remarkable that in the middle and latter stages of the complaint the whole force of the disease is apparently withdrawn from every other part, except the nervous system.

This fever frequently continues for some weeks, and terminates in such a state of prostration as to prove fatal, or it degenerates into a malignant type; but when it terminates favourably, it generally subsides about the fourteenth or fifteenth day, by diarrhœa, or by perspiration diffused over the whole body. It often, however, continues thirty or forty days, and finally subsides without any evident crisis.

The symptoms of typhus fever may be summed up in a few paragraphs:

1st. Great prostration of strength.

2d. Great alteration in the blood and other fluids of the system.

3d. A very morbid state of the digestive organs, occurring as *secondary*, or *primary*, symptoms.

4th. Agitation, anxiety, and loss of sleep, and delirium; spasms in various parts of the body; respiration hurried, sometimes with cough and bloody expectorations; lips dry and parched; gums red, dry, and covered with mucus; teeth crusted; tongue generally swelled and stiff; skin dry; great lethargy; quick, small, and irregular pulse; thirst, nausea, and vomiting. In some cases the fluid discharged from the stomach is of a bilious character; in others it is dark, or like coffee grounds. Passages from the bowels very unhealthy and fetid; flatulence; sometimes swelling of the abdomen. Thus the circulating respiratory and digestive organs are all disordered.

TREATMENT.

INDICATIONS OF CURE.

1. Diminish arterial excitement by stimulating the excretory organs to a healthy action.

2. Equalize the circulation.

3. Remove local congestions.

4. Support the strength of the patient, or the powers of the system.

Emetics.—If called in the incipient stage of this fever, or a few days after the attack, a gentle *emetic* may be given, particularly if there is nausea, oppression, and sickness.

Should not the complaint yield to this, and such other medicine as will be mentioned, this emetic may be repeated once in three days, any time before the stage of prostration commences. One or two doses in the commencement is sufficient; and where there is any peculiar temperament to contra-indicate the use of emetics, and in the middle and latter stages of the fever, they may be entirely dispensed with. The early exhibition of an emetic is generally attended with a very salutary effect, often arresting the fever in its commencement; but when the fever has existed for some time, they should not be given, particularly when the system is much debilitated. Emetics, judiciously given, not only cleanse the stomach of its acrid and

morbid contents, but the impression which they give to the skin, the other excretions, and the whole system, is attended with a very excellent effect. They promote perspiration, and thereby prevent congestion, expel irritating agents from the circulating mass, give tone and energy to the stomach, liver, and the connecting organs, and in many cases their early use breaks up the disease before it becomes fairly seated or established; or at any rate mitigates the symptoms.

As valuable, however, as they are, it is not always necessary to administer them in order to remove the disease.

Purgatives.—Gentle cathartics are exceedingly valuable throughout the whole course of typhus fever.

"The full operation of aperients," says Armstrong, "sometimes reduces the morbid heat of the skin, and the morbid force of the pulse in the stage, almost as effectually as the effusion of cold water, &c."

In typhus the brain, and the system generally, is thrown into a very morbid condition, by an accumulation of acrid and vitiated bile, and matter collected in the stomach and first passages, in consequence of an inactive or torpid state of the liver.

Delirium, great heat, and prostration of strength take place from this cause. The sympathy that exists between these organs is truly surprising: if one is healthy, so is the other; if one is in a morbid condition, those that sympathize with it are diseased also. Hence the very great importance of exciting a healthy state of the stomach, liver, and whole alimentary canal.

Purgatives are admirably calculated to fulfil this indication. They cleanse and stimulate at the same time; and, although a patient is very weak, he will gain strength under the administration of repeated purgatives. They may be given in moderate doses every other day in protracted cases.

Persons in a very low or distressed state of typhus fever will soon assume a more healthy appearance after the administration of purgatives. The *mandrake* physic is very good: in some conditions of the stomach it operates both as an emetic and purgative, evacuating large quantities of offensive matter, which almost invariably improves the condition of the patient.

Says Hamilton, "My experience in the treatment of typhus enables me to draw the following conclusions:

1st Purgative medicines are given with safety in typhus, to evacuate the contents of the bowels.

2d. Under this limitation, they may and ought to be exhibited at any period, from the commencement to the termination of the fever.

3d. The early exhibition of purgatives relieves the first symptoms, prevents the accession of more formidable ones, and thus cuts short the disease.

4th. In the advanced period of typhus gravior, symptoms that indicated the greatest danger were relieved by the evacuation of the bowels, and the patients in this instance recovered.

5th. Reconvalescence from typhus is greatly promoted and confirmed by a preservation of a regular state of the body. The same means secure against the danger of a relapse."

Diaphoretics.—Among all the class of medicines prescribed for this disease, none stand higher than sudorifics, or medicines which produce perspiration. They are calculated to relieve the stupor and pain, they expel the morbific matter from the system, allay heat, and procure rest. The *diaphoretic powders* may be given as directed under the head of bilious remittent; these may be given, particularly in the first stage of the disease, in

doses of a tea-spoonful in a small quantity of *catnip* tea, sufficient to produce a moderate degree of perspiration. Too much sweating must not be promoted or encouraged, as debility is apt to follow. A moisture of the skin must be produced, at least, throughout the whole course of the disease, until a crisis takes place; and to effect this, three grains of *ipecac* in any form may be given three or four times a day, with an infusion of *balm* and *catnip*, or tea of the *amaranthus* or *crawley root*.

Refrigerants or cooling Medicines.—After the disease has become fairly established, and assumes an obstinate character, I have known every prescription of a heating or stimulating nature to aggravate the complaint. In this case it becomes necessary to reverse the treatment. Refrigerant and cooling remedies must be used. The *anti-bilious* and *mandrake physic* may be given alternately in moderate doses. Gentle purgatives may be given, as a general rule, every other day. Frequent and excessive purging is injurious.

Diluents.—Cold water may be drank from time to time, if the patient complains of great thirst: also lemonade, toast water, cream of tartar, whey, and soda powders. Likewise beer made of various roots may be freely drank; such as *spice-wood*, *sassafras*, *burdock*, and *black alder*. Let them all be boiled down strong, sweetened with honey or molasses, and, when blood warm, a sufficient quantity of yeast added. This will prove a grateful and cooling beverage, and it may be drank freely.

Anodynes.—If the patient is unable to sleep, complains of pain or distress, a portion of the *diaphoretic powders* may be given at bed-time in any suitable vehicle. This produces sleep, moisture of the skin without causing any excitement, and is a most invaluable medicine in typhus. These powders may be repeated daily.

Ablution.—Among the various means made use of to arrest the progress of this disease, few are more valuable than the cold affusion. Such confidence had Dr. Currie, of Liverpool, in this application in fevers, "that," he says, "for the cure of our most common febrile diseases it is no longer necessary to ransack the elaboratory of the chemist, nor to traverse the mountains of Peru; that the cold affusion, used in the first three days of fever, very generally stops the disease. The same happy effects sometimes follow its use on the fourth, or even fifth day, but seldom later. Even in the subsequent stages, where the heat continues preternaturally great, and the skin dry, it is of great and manifest advantage, almost immediately relieving the most distressing symptoms, particularly restlessness and delirium, and conducting the disease *to a safe and speedier issue.*"

If the heat is not much above the natural temperature, as is sometimes the case in typhus, tepid or moderately warm applications may be applied to the body; the whole surface should be bathed with it three or four times a day, or as often as the fever increases; this answers all the purposes in general of dashing buckets of water upon the patient. Should the heat be below the natural standard, let the parts occasionally be bathed with cayenne pepper and spirits. It is of the utmost importance to bathe the feet in warm rain water or ley once a day. Great attention must be paid to cleanliness; the patient's hands, face, and breast should often be washed with warm water, his hair should be combed, and his bed and body linen frequently shifted, his mouth washed and gargled; lemonade, tea, or toast and water should be given very frequently; all excrementitious matters should be immediately removed, and the apartment should be well ventilated.

Sinking stages of Typhus.—We have hitherto been speaking of the first stage of typhus, before collapse, or great prostration, or sinking takes

place. It is well known that *debility* is a characteristic symptom of this fever, and hence it is necessary to use the utmost precaution to support the strength of the system. To effect which, we must first give *tonics* or *stimulants*. Even though the pulse be somewhat irregular, weak, or quick, it will not contra-indicate or deter us from the use of corroborating or strengthening medicines, especially where prostration of strength is very great, and the person sinking. If the skin be dry, and there is great debility, the best Madeira wine may be used, diluted with twice its quantity of water, sweetened, and given warm. This acts not only as a tonic, but likewise as a diaphoretic, promoting perspiration. A wine glassful may be occasionally taken through the day. Good *porter* and *yeast* may also be given.

Dr. McNair has the following remarks on tonics in typhus: "The tonic which I should advise to be used, and the one which I have found most effectual, is the *muriatic acid*, (spirit of salt.) It allays the heat and tranquillizes the restlessness at the same time that it supports the strength of the patient, and, therefore, may be always given at an early period of the disease without danger, and at a time when it would be extremely dangerous to employ either wine or bark. Besides, this acid is a remedy peculiarly well adapted to domestic practice in this disease, it being more manageable than most other diseases, and may be used by unprofessional persons with more prospect of advantage and less risk of injury than they can expect to obtain by giving bark or wine. *Ten drops of muriatic acid* may be taken in a wine glass of cold chamomile tea, and repeated every six hours."

Mustard Plasters.—I have very little confidence in blisters, although some highly extol them. Applied in the first stages of the disease, they have a tendency to increase it, and there is also danger from mortification. A mustard plaster is not attended with these unpleasant effects.

If there is a great determination of blood to the head, one may be applied to the nape of the neck, and kept on long enough to excite redness of the skin. It may then be removed, and placed on the right side, over the region of the liver, and continued until the same effect is produced.

If the head is in great pain, cold water, spirits, and vinegar, to which has been added a little common salt, may be applied to it; or a strong decoction of hops.

When we reflect upon this stage of prostration, is it not a matter of profound astonishment that many of the physicians of this day should practice blood-letting, even when the patient is on the borders of the grave from debility? I ask the candid, sensible reader whether there is any sense, judgment, or philosophy in such treatment?

As before-mentioned, it is very common in typhus for the temperature of one part of the body to be natural, while in another there is an unnatural degree of heat. This arises from a recession of blood from the surface to the internal organs, or to an unequal circulation of the blood. To obviate this, fomentations and frictions must be used. Hops boiled in vinegar may be applied; also the following: Cayenne pepper, (*capsicum annuum*,) a tea-spoonful; spirits of any kind, half a pint; simmer a few minutes, and apply to the parts with a piece of flannel.

These applications have a tendency to recall the blood from the internal parts to the surface, and to equalize the circulation.

If great weakness continues, and the system cannot be aroused by the stimulants already mentioned, the following powder may be given: Cayenne pepper, (*capsicum annuum*,) ten grains, or half a tea-spoonful; mint water or tea, one gill; sweeten with sugar or lemon syrup: give the whole at a dose, and repeat three times a day.

This is one of the most permanent and pure stimulants that can be administered, and has this peculiar effect upon the system, that, while it stimulates, it does not increase the fever. Should a diarrhœa come on, and the general symptoms indicate a favourable crisis, it must not be checked; but, on the contrary, should the patient continue to grow worse under it, it must be checked or moderated; for this purpose give the neutralizing mixture.

Tonics.—Many are in the habit of giving *Peruvian bark* in typhus fever, but I have no evidence of its ever proving beneficial. While the exciting cause of the disease remains, it seems to possess no power of removing, but rather increases it. Should, however, a complete remission take place, *centaury, boneset, or chamomile* tea may be drank.

Should any symptoms of putrescency appear, the following mixture may be given: Good yeast, a wine glass; milk, the same quantity; sweeten with molasses: the whole be taken at a dose, and repeated two or three times a day.

Fresh Air.—In this, as well as every other type of fever, fresh air must be admitted into the apartment of the patient, and the most rigid attention to cleanliness must be observed. As soon as anything passes the bowels, it must be immediately removed, and the casements of the windows or the doors left so far open as to admit of a current of air.

It has been proved by dissections that in typhus, and no doubt in other fevers, the stomach and intestines are considerably diseased. There is often inflammation and ulceration of the mucous coats and the glands, which show the propriety of administering cooling and mucilaginous drinks and soothing medicines, as well as diet. For this purpose *yeast, mucilage of slippery elm, charcoal, &c.*, may be alternately given. Where disease exists in the intestines, there is usually a relax, tenderness, and severe swelling of the bowels. In such cases particular attention must be paid to external applications, as *mustard plasters, fomentation of hops* and *bitter herbs*, and frequent injections, to which yeast may be added. When it is deemed advisable to give physic with these symptoms, *rhubarb* is very good, as it has a very tranquillizing effect upon the mucous membrane of the intestines. In consultation with a distinguished physician of this city, in a case of typhus he recommended a dose of this root, a tea-spoonful daily, under which the patient improved and recovered.

"We should ever bear in mind, in the treatment of this and other types of fever, the conservative powers of the system, and which was illustrated in a contagious fever in Italy, in 1817, as well as in numerous other cases," says Dr. Valentini, an Italian physician. "To prove how much nature is capable of performing, and to what extent we should rely on her exertions, in a great number of cases of this fever nothing was administered but copious drinks, either of *pure water, lemonade*, or emulsion of *nitre*." He cites, as a proof of the efficacy of this plan, the case of a soldier in the pontifical service, thirty-three years of age, and of a robust habit, who was seized with a *gastric nervous fever*. This man obstinately refused all medicines, except an emetic which had been given at the commencement of the disease; yet, by his drinking simple lemonade and abundance of the purest water, after having suffered the attack of mortal symptoms on the seventeenth day of the disease, he fell into a copious sweat, and recovered. "I was persuaded," continues Dr. Valentini, "of the inefficacy of medicine in the greater number of cases, and willingly followed the wishes of the patient." He supports his opinion by referring to Hippocrates, and others of the ancient as well as modern writers, and concludes by a quotation from *Celsus*, in which this author says: "*Multi magni morbi curanter abstinentia et quiete;*"

which may be translated thus: "Many of the most serious diseases are cured by abstinence and quietude."

REGIMEN.

The patient must be kept cool and quiet in body and mind, and as much encouragement held out as the nature of the fever will admit. After the stage of excitement is over, a nourishing and generous diet may be allowed, such as panado and gruel mixed with wine. Chicken soup may be given, particularly in the middle and latter stages of typhus, but it must be freed from oil. Wine whey may also be used as a common drink; and, as before intimated, occasionally a glass of good Maderia wine may be given, and, if there is no fever, with great weakness, *wine bitters* or the sulphate of quinine.

Prevention of Typhus Fever.—"It cannot be too widely known," says an English writer, "that nitrous acid gas possesses the property of destroying the contagion of the typhus fever, and certainly of preventing its spread. By the following simple method the gas may be produced at a very trifling expense: Place a little powdered saltpetre in a saucer, and pour on it as much oil of vitrol as will cover it; a copious discharge of acid gas will instantly take place, the quantity of which may be regulated by lessening or increasing the quantity of materials."

SECTION II.

PUTRID OR MALIGNANT FEVER. (*Typhus Gravior.*)

DESCRIPTION.

Malignant or putrid fever takes its name from the putrescent and malignant character with which it is attended, especially in the latter stages of it. It is by some called the *pestilential fever of Europe*, and seems nearly allied to the plague. It may be distinguished from the mild species of typhus by the great violence of the attack, and from the inflammatory fever by the smallness of the pulse, the sudden and great debility in its commencement, the brown or black tongue, the foul matter about the teeth, the intense heat of the skin, and, in the advanced stages, purple spots which appear in various parts of the body; fetid stools, &c.

CAUSES.

The malignant fever is occasioned by impure air, from many persons being crowded together into small, dirty, and unventilated apartments or houses; from putrid animal and vegetable effluvia, &c.

Like common typhus, it is prevalent in jails, camps, and hospitals, particularly where they are much crowded, filthy, and the air confined. Long periods of rainy or wet weather, it is thought, likewise occasion putrid fever. It often succeeds great inundations in low and marshy countries, particularly where these are preceded and followed by a hot and sultry season. It may likewise arise from eating too much animal food without the use of vegetable, or eating meat that is on the verge of putrefaction. Hence those from the calamities of war; those who are confined on ship-board, and are obliged to

live upon unwholesome, tainted animal food, are very liable to an attack of putrid fever. A vessel lately arrived at our quarantine, having on board many suffering with this fever.

It may also arise from stagnant water; also the effluvia arising from the decomposition of animal matter, dead bodies, &c. Hence it has often prevailed where persons have been suffered to remain above ground, unburied.

Want of cleanliness is a common cause of malignant fever, and it prevails where the inhabitants are crowded together, the apartments filthy, and a very little circulation of air. This fever is unquestionably contagious

SYMPTOMS.

An attack of this disease is characterized by debility, great depression of spirits, and of muscular power. There is sense of soreness, pain in the head, back, and extremities, attended with chills; the eyes appear full, heavy, yellowish, and somewhat inflamed; there is a great beating of the temporal arteries, the tongue is dry and parched, breathing laborious and interrupted with deep sighs, the breath is hot and offensive, urine pale, an intense heat of the skin, which is dry and constricted, great constipation of the bowels, the pulse is quick, small, and hard, fluttering and irregular; there is often great heat, oppression, and pain at the pit of the stomach; and as the disease advances the pulse increases in frequency, (beating often from 100 to 130 in a minute:) there is apparently vast debility; great heat and dryness of the skin; oppression at the breast, with anxiety, sighing, and moaning; the thirst is greatly increased; the tongue, mouth, lips, and teeth are covered over with a brown or black tenacious fur; the speech is inarticulate and scarcely intelligible; the patient mutters much, and dilirium arises. The fever continuing to increase still more in violence, symptoms of putrefaction show themselves; the breath becomes highly offensive; the urine deposites a black and fetid sediment; the stools are dark, disagreeable, and pass off insensibly; hæmorrhages issue from the gums, nostrils, mouth, and other parts of the body; livid spots, or petechiæ, appear on its surface; the pulse intermits and sinks; the extremities grow cold; hiccoughs ensue; and death at last closes the tragic scene.

When this fever does not terminate fatally, it generally begins, in cold climates, to diminish about the commencement of the third week, and goes off gradually toward the end of the fourth, without any very evident crisis; but in warm climates it seldom continues above a week or ten days, if so long.

TREATMENT.

The great indication of cure in putrid fever is, to arrest it as speedily as possible, in order to prevent the fluids from running into a state of putrefaction.

An *emetic* may be administered, as directed in the preceding type of fever; and, if it proves beneficial, it may be repeated in a day or two afterward.

Give the *anti-bilious* physic: a tea-spoonful may be taken in syrup, molasses, or any convenient vehicle; to be repeated daily, or every other day, according to circumstances.

Give a tea-spoonful of the *diaphoretic powders*, to be repeated every two hours until perspiration takes place. These *powders* must be used often enough to keep the skin moist, and two or three times a day is sufficient for this purpose. Let an infusion or tea of catnip or other herbs be freely taken at the same time. No means that can be made use of will cut short the fever so quick as free perspiration

Let acidulated drinks also be given. Lemonade is a valuable medicine in putrid fever; it is antiseptic, or has a great tendency to prevent putrefaction.

Dr. Thomas, who had much experience in this kind of fever, has the following remarks on the use of acids:

"Whatever is given to the patient for drink ought to be cold and gently acidulated with the juice of oranges or lemons. The mineral acids likewise are, beyond all doubt, better remedies in this and other malignant diseases than we have been accustomed to regard them; and, from having employed them, but more particularly the muriatic, for several years with very great success in typhus gravior, I can vouch for their efficacy. My usual plan of proceeding is as follows: Having relieved the stomach by a gentle emetic where nausea prevails, cleared the bowels of their feculent contents, and subjected the patient to cold affusion, when the circumstances already noticed have admitted of it, I prescribe for adults ten or twelve drops of the muriatic acid, guarded with five drops of laudanum; and as a vehicle I employ about an ounce and a half of an infusion of chamomile or columbo. This draught I direct to be repeated every four hours, gradually increasing the quantity of the acid in each to eighteen or twenty drops, or more.

The Surface.—In order to aid the process of sweating, and, consequently, to abate the febrile symptoms, let the whole surface be *thoroughly and repeatedly bathed with tepid ley water.* The happy and permanent effects of this practice, the astonishing power that it possesses to arrest and destroy fevers of every grade, can only be known by those who have experienced it. It seems almost capable at once of snatching the victim from the grave. It lowers the pulse; diminishes arterial excitement; removes pain, tension, and congestion; equalizes the circulation; quenches thirst; procures rest and sleep, and, in short, is one of the greatest anti-febrile remedies which we possess.

The feet also must be bathed once or twice a day, and *mustard* poultices applied, and to the nape of the neck if there be great pain in the head. By reference to Thomas, I see that he highly extols, with others, cold affusions in putrid and malignant fever. At the same time, as far as my experience goes, I have found that tepid applications are preferable to cold in all febrile diseases.

Antiseptics.—When symptoms of putrescency occur, let good yeast be given freely. Brewers' yeast is preferable, if it can be procured. A wine glass may be given every three hours through the day. Besides the laxative effects of the yeast, it possesses great antiseptic properties. A clergyman and practitioner, in England, records the good effects as follows. It would appear to possess almost specific properties.

Whatever may be the mode of action of yeast in typhus, the fact appears to be indisputable, that fixed air takes off that extreme debility of the stomach so conspicuously marked in disorders of this nature; and in proportion as that subsides the pulse rises, becomes slower and fuller, the burning heat on the skin disappears, and a truce is gained for the reception of nutritive supplies.

"Seventeen years past, I went," says a benevolent individual, "to reside at Brampton, near Chesterfield. I had not been there many months before a putrid fever broke out among us: finding a great number of the people too poor to afford relief to themselves, I undertook, by the help of such books as were in my possession, to prescribe for them. I early attended a boy fourteen years of age, attacked with the fever, the symptoms unequivocally putrid; I gave bark, wine, and such other remedies as my books directed, but found them of no avail; his disorder grew every day worse, and I was

hourly in expectation of his dissolution. Being under the necessity of taking a journey, before I set off I visited him, and I thought for the last time, and prepared his parents for the event of his death. While conversing on this distressing subject I observed in the corner of the room a tub of wort working; the sight brought to my recollection an experiment I had somewhere met with, of a piece of putrid meat being made sweet by being suspended over a tub of wort in the act of fermentation. The idea rushed into my mind that the yeast might correct the putrid nature of this disease, and I instantly gave him two large spoonsful, and told the mother, if she found her son better, to repeat the dose every three hours. On my return, after a few days, I anxiously inquired after the boy, and was informed he was recovered. I went immediately to the house, when the boy opened the door, and looked surprisingly well."

He proceeds to relate a number of very bad cases, all of which recovered by the use of yeast.

Examinations of those who have died of fever, particularly of malignant typhus, in different parts of the world, show that the gall-bladder, and sometimes the first passages, are in a very congestive or morbid condition, and sometimes the *spleen*. A *black* and *fetid fluid*, resembling *tar* or coffee grounds, is found secreted by the liver, which proves the necessity of resorting to prompt means in order to excite a healthy action of the secretions or emunctories; otherwise the system is in danger of sinking under the prostrating power of febrile poison; and it is no doubt owing to this poison that the intestines and contiguous organs are so frequently found inflamed and ulcerated. This state points out the advantage of giving freely of *yeast* and *slippery elm bark*, especially in advanced stages of the disease; as well as the treatment already recommended in the first stages.

Mustard Plasters.—Blisters must be carefully avoided in putrid fevers. There is such a tendency to putrescency in the fluids, that mortification is very likely to follow their application. If the pain of the head be great, and delirium present, a mustard plaster, as before intimated, may be applied for a short time to the nape of the neck.

Bathing the Head and Feet.—Great attention must be paid to the act of bathing the feet and head. Nothing has a greater tendency to mitigate pain than this practice. Cold water, vinegar, and salt may be applied to the head; it abstracts the heat from it, and equalizes the circulation.

Remission.—When there is evident remission, the wine tincture may be given.

Gargles.—The mouth must be frequently cleansed with vinegar and water, or wine and water sweetened with honey: also yeast and milk.

Pain and Restlessness.—If there is much pain, distress, restlessness, and want of sleep, give ten grains of *diaphoretic powders*, particularly at night. They are anodyne, diaphoretic, refrigerant, antiseptic, and diuretic. Their operation must always be aided by an infusion or tea of *balm*, *catnip*, or other herbs.

PLAGUE. (*Pestis.*)

DESCRIPTION.

The plague is a very malignant fever, of a putrid and contagious nature, characterized by extreme debility, buboes, carbuncles, red or purple spots

upon the skin, hæmorrhages, diarrhœa, &c. The infection of this disease is of a specific nature, producing febrile symptoms, and affecting the nervous and glandular system.

The plague is, in strict nosological language, a continued fever closely allied to typhus, and, therefore, demands notice more particularly in this place. In its symptoms and progress we shall trace an obvious resemblance to those of typhus.

The disease attacks persons of all ages and both sexes indiscriminately: but women, young people, and infants at the breast have been observed, in general, to resist infection more than robust men. Those who were exposed to vicissitudes of heat and cold, such as bakers, cooks, and smiths, were noticed, during the campaign in Egypt, to be more particularly attacked with it.

In all epidemic plagues terror and anxiety, filth and defective nutriment, fatigue and hurry, anger and intemperance of every description, have acted as predisposing and accelerating causes of the distemper.

Its laws have been investigated with some accuracy, and the following seem to be the most important of those which have hitherto been ascertained.

1. The *latent period* of the contagion of plague, or that between communication with an affected individual and the appearance of symptoms, varies in different cases. It is scarcely ever less than three days, and it seldom exceeds six. Instances, indeed, are recorded of the disease not appearing until the tenth day, but these cases are rare.

2. The contagion spreads to only a very small distance from the body of the patient. The consequence of which is, that the disease is seldom, if ever, communicated, except by actual *contact*.

3. The dead body does not communicate the disease so readily as the living. This appears to be well understood in Turkey; but that the contagion is sometimes received from the dead body, cannot, I apprehend, be doubted.

4. The contagion of plague is readily imparted to *fomites*, in which it may lurk for a very long time, more particularly if secluded from the air.

5. Reinfection is occasionally observed, but, upon the whole, is not common. The individuals throughout Turkey, who are employed about the persons of plague patients, have, with very few exceptions, undergone the disease. Sufficient instances, however, are met with of persons taking the disease a second time, and even dying of the second attack, to make all who have previously had it cautious in their intercourse with the affected.

6. Plague, like the small-pox, may be taken by inoculation. The experiment has been tried in several instances, but in none has it succeeded in mitigating the disorder. Dr. Whyte, in 1801, and Mr. Van Rosenfeldt, in 1817, paid with their lives the forfeit of their temerity. The former died on the fourth, the latter on the second day of the disease.

Plague I have stated to be epidemic in Egypt; and both at Cairo and Constantinople cases of the disease are almost always to be met with.

SYMPTOMS.

A feeling of great langour and lassitude ushers in the attack of plague, which for the most part happens toward evening. There is always a cold stage, though it is seldom of long duration. Heat of skin, headache, and giddiness succeed; the pain of the head is referred to the temples and eyebrows; the eyes appear heavy, dull, and muddy; the expression of

countenance changes in a remarkable manner. Sometimes there is a wild and furious look; sometimes a look claiming commiseration, with a sunken eye and contracted feature. The most striking of all the early symptoms of plague is the *staggering* and the sudden extreme prostration of strength. A strong tendency to void the urine is generally noticed; the stomach is very irritable, and rejects almost everything presented to it; the tongue is white and moist; the bowels are sometimes torpid, and at other times loose, the evacuations being always highly offensive; the speech falters; the pulse is at first small, hard, and quick; but after the appearance of buboes it often becomes fuller and softer. It is sometimes intermittent. In point of frequency, its average may be stated at 100; the heat of the skin is seldom very intense; the head is occasionally perfectly clear and collected; at other times stupor occurs immediately after the formation of the hot fit. Some cases of the disease are ushered in by a violent fit of mania. The greatest indifference with regard to recovery prevails, which is always reckoned a most unfavourable symptom.

After one, two, or at farthest three days, pains in the groins and arm-pit announce the formation of *buboes*. These pains are often highly acute, and, unless speedily followed by the swelling of the gland, the patient dies delirious. In women the arm-pit, in men the groins are chiefly affected. Carbuncles appear at the same time, but indifferently, on all parts of the body. Eruptions are much more frequent than carbuncles, which it appears do not occur above once in twenty cases. The fatal termination is sometimes preceded by violent hæmorrhages from the mouth, nose, or intestines.

The duration of the disease is very various. A few cases are on record where the patient died within a few hours from the invasion. To many it proves fatal during the first paroxysm or period, which includes the time from the evening of the attack to the close of the following night. The third and fifth days are, however, upon the whole, those of the greatest danger. The former is the usual period of the appearance of bubo; the latter of the abatement of the febrile symptoms. If the patient survives the fifth day, and the bubo is fully formed, he may be considered as nearly out of danger. The convalescence, indeed, is always very tedious, from the extreme debility which the disease leaves; and the patient's life is not unfrequently again put into imminent hazard, from the occurrence of gangrene in the extremities.

Such is the train of symptoms which characterize this disease. Some idea of the extent of the mortality which it occasions may be formed from the fact, that out of 700 persons attacked by it in the district of Leftimo, in Corfu, 1815, seventy only were saved, and 630 died. It is curious, however, to observe, that occasionally this very formidable disease assumes a totally different character. The *mild* form of plague is not peculiar to any families, or classes of persons, or districts, or periods of the epidemic. It is more commonly met with toward its decline, but it is observed occasionally even from the very first. Buboes form in this variety of the disease about the usual period, generally with a good deal of inflammation, and go on to suppuration. Carbuncles and eruptions, however, are never observed to attend it. It is marked by the same set of febrile symptoms as characterize the malignant form of the disease, but they are all milder in degree. It terminates occasionally by a critical discharge, but does not appear to require, or to be at all affected by, common medical treatment. A few cases have been recorded of plague appearing in the form of buboes, without any constitutional affection

TREATMENT.

From the nature, history, and symptoms of this disease, the indications to fulfil will appear very obvious. The impropriety of bleeding, where there is such excessive debility, must be apparent. It is stated that "Dr. Whyte, one of the physicians to the forces in Egypt, used the lancet very freely, but that every one of his patients died."

The treatment evidently called for in the plague is nearly pointed out under the preceding type of fever, (*typhus gravior*,) which it very closely resembles.

Purgatives have been almost proscribed by some practitioners. But, from the large quantities of fetid, bilious matter secreted by the liver, and thrown into the stomach and first passages, it appears clear that *vegetable purgatives* are indispensably necessary. So far from inducing, they must remove debility, by evacuating the morbid and feculent matter attendant on the complaint.

Emetics have been found by those most experienced in the plague to be very valuable. They therefore should be given as early as possible, and occasionally repeated, according to the severity and symptoms of the disease. I am confident that no emetic, from its extensively stimulating effects, will answer a better purpose than the *lobelia inflata* and *ipecac*.

Sudorifics are the principal class of medicines to be relied upon, to expel from the system the peculiar *virus* or poison, which is the immediate cause of the disorder. The patient, therefore, should be put into a state of perspiration as speedily as possible, by the usual means, to be continued till a crisis or remission succeeds. A writer states, "It has been observed that a gentle *diaphoresis* or *sweating* sometimes proves critical and carries off the disease."

Antiseptics must be administered, if symptoms of putrescency appear: the same as recommended under the head of *malignant fever*. If there be great prostration, yeast and good wine may be drank. Infusions of *medicinal plants*, such as *balm*, *catnip*, *snake-root*, *mint* may be freely taken; also lemonade, cream of tartar, whey, and other diluent, acidulated drinks.

Ablutions, or bathing the whole body very often with the *alkaline wash*, (ley water,) will be found one of the most powerful and salutary remedies. It usually requires not more than fifteen minutes measurably to remove the most violent heat of the skin and lower the pulse to its natural standard. The feet must also be immersed morning and night in the same liquid.

Savary, in his Letters on Egypt, mentions an anecdote, which is considered by Dr. Falconer as much to his purpose. The captain of a ship, whose sailors had contracted the plague at Constantinople, caught it himself by attending on them: he felt, as he expressed himself, excessive heat, which made his blood boil; the disease seized his head, and he perceived (as he thought) that he had only a few moments to live. The little remaining reason he had taught him to attempt an experiment: he laid himself down quite naked on the deck; the heavy dews that fell penetrated, according to his sensations, to his very bones. In a few hours he could breathe better, his agitated blood became calm, and, bathing the morning after in the sea, he was perfectly cured.

This case brings to my recollection another, of a French soldier, and reported by Dr. Desgenettes, who, being afflicted with the plague, threw himself into the Nile under a high degree of delirium, and, on being taken out of the water after a short lapse of time, soon recovered from the disease,

seemingly in consequence of his immersion. A similar case is brought forward of the good effects derivable from the sudden application of cold water, by Sir Brooke Faulkner, in his Observations on the Plague.

Water applied to the surface too cold, when the excitement of the blood-vessels runs high, or when it is reduced very low, increases reaction in the first stage, and prevents it in the latter. In the intermediate stages of the disease it is useful. Water which has stood awhile in the air allays thirst much more than when it is very cold. This has been confirmed by the experience of persons who work in the open air in hot weather, as well as by patients in fever.

Mustard Plasters may be applied to the nape of the neck and to the bottom of the feet, for pain in the head or delirium.

For sickness at the stomach, local pains, and congestion, make use of the same treatment as recommended under the head of other types of fever.

Anodynes, combined with *diaphoretics*, may be given to procure sleep and produce perspiration. Nothing will equal the *diaphoretic powders*, which may be given two or three times a day.

SECTION III.

YELLOW FEVER. (*Typhus Icterodes.*)

DESCRIPTION.

The yellow fever is a disease which very much resembles in its character the highest grades of the *bilious remittent fever*. It is more violent in its attack, and all the symptoms are more aggravated, and there is a greater tendency to putrescency, together with some other distinguishing characteristics.

CAUSES.

Predisposing Causes.—There are many predisposing causes of this complaint, among which may be reckoned intemperance of every kind. Almost all the first victims of yellow fever are addicted to the use of ardent spirits, and such are the most liable to fall victims to it. The constitutions of such are more susceptible of the disease in its more violent and malignant form. Another predisposing cause is great fatigue, exposure to damp, wet weather, getting the feet and clothes wet, a check of perspiration, overloading the stomach, and everything which causes a deviation from health.

Immediate or Intermediate Causes.—A contagious and poisonous gas or gases must be considered the immediate cause of this kind of fever.

"Pestilence or contagion has always been the *peculiar curse of populous cities*. Of about two hundred general plagues recorded in history," says Webster, "a few only have been so violent as to spread over countries into villages and farm-houses; almost all have been limited to large towns, evidently demonstrating that they would never have affected mankind without the influence of impure air generated in those places. This is a truth as unquestionable as it is important; and on a conviction of this hangs the safety of men from that dreadful calamity."

A writer states that yellow fever, instead of being caused by contagion, is

produced, *like all other fevers*, by *debility*, and that this debility is caused, at least among the patients of New Orleans, by great changes of temperature and careless habits; and that the greatest sufferers are strangers from northern climates, whose system have been debilitated by cold winters. This causes a balance between internal or vital heat and external heat, which prevents that determination to the surface which is essential to health. Another cause is the great difference in temperature between day and night, which is so great as to produce debility, and thus predispose the system to the disease.

Origin.—There has been great dispute among physicians respecting the origin of yellow fever. Some contend that it may be generated in this country; others that it is imported. Some, again, contend that it is communicated from one subject to another; others believe the contrary. Hence it has been the theme of fruitful discussion and controversy. From all the facts that we can gather, we are led to believe,

1. That it may be imported from the West Indies and other warm climates, into the United States.

2. That it may arise spontaneously among us from local causes, filth, &c.

Is Yellow Fever Contagious?—It is equally evident that the yellow fever is not contagious, except under peculiar circumstances. It is highly infectious within a certain distance of an infected ship or place. In other words, as far as the atmosphere is sufficiently contaminated with the deleterious effluvia, it may be communicated to those who inhale it. This was clearly proved when it last occurred in this city, in 1822. A certain part was enclosed, called the "infected district." Those who went within it caught the fever, while those who remained outside were free from it. But it is equally as clear, and as well established, that the fever was seldom, if ever, communicated to those who visited or nursed such as were sick with it. As soon as they were removed into the country, or even a short distance from the infected part, they never communicated it to a single individual. Those who are the strongest advocates for contagion seem to admit that it cannot be communicated from one person to another, except the air becomes very much vitiated or impure where the patient lies. Hence it is a great consolation to know under what circumstances the yellow fever is generated and produced. While on the one hand we entertain no groundless fear of taking the complaint, on the other, it becomes our city authorities to maintain a rigid quarantine.

It appears that yellow fever is *infectious*, not *contagious*—that is, it is not communicated from one person to another, but is communicated by visiting the place infected with the malaria or poison. The ship Ten Brothers, which arrived at Boston in 1819, affords an illustrative example, both of the production of malaria or infection on board ship, and its non-contagious nature. This vessel having arrived at Boston on the first of August, a number of persons went on board while she was discharging her cargo, and of these twelve individuals, living in various parts of the city, were seized with malignant fever, nearly all of whom died. The disease was not, however, communicated to a single one of those who visited the sick.

Mortality of the Disease.—Yellow fever has hitherto been very prevalent in many of our Atlantic cities, in the West Indies, and some other parts. It has ever been very formidable and very fatal, and which may be imputed in a great measure to the want of proper medical treatment. New York, Philadelphia, Baltimore, Charleston, Savannah, and New Orleans have suffered terribly by this horrid malady, and it has been still more destructive

in some of the West India islands. In Havana it is stated that in the month of June (1816, I think) it swept off, in the course of three weeks, *thirteen hundred persons.*

Proximate Cause.—It is self-evident that the proximate cause of this type of fever is a specific poison received from the atmosphere through the medium of the lungs, and which enters the circulation, is thrown upon the liver, and in an attempt or effort to expel it from the system through the medium of this organ and the stomach, vomiting and gastric irritation ensue. The poison also being mixed with the blood, is carried to the heart and becomes a foreign irritating and morbific agent, which stimulates it and the blood-vessels to a most powerful action, to throw it off by the skin and the other excretions.

SYMPTOMS.

The yellow fever usually attacks with lassitude and weariness, chilly fits, listlessness of everything around, faintness, giddiness, flushing of the face, redness of the eyes, pains in the eyeballs and lower part of the forehead, as likewise in the back; debility and sighing; thirst, and a tendency to lethargy; the urine is high coloured, small in quantity, and turbid; the perspiration is irregular, interrupted, and greatly diminished; the saliva is viscid; the tongue is covered over with a dark fur; the bile, which is scalding and acrid, is secreted in unusual quantities, and is thrown into the stomach, from which it is again speedily ejected, and the skin is intensely hot, dry, and hard. The disease continuing to advance, the eyes become of a deep yellow; the face and breast are tinged with the same hue; an incessant retching and vomiting of frothy bile ensues; great costiveness prevails, which is attended with a permanent dilatation of the pupils of the eyes.

There is hardly ever an evident remission until the fever has entirely gone through its first stage, which is generally in thirty-six or forty-eight hours, when there is often such an abatement of the symptoms as to induce the patient to think himself tolerably well; but an early recurrence of the symptoms in an aggravated form, accompanied with extreme debility, soon convinces him of the contrary. In the last stage of the disease the greatest debility prevails, and symptoms of universal putrefaction arise; large patches of livid spots are to be observed on different parts; the tongue becomes dry and black; the teeth are incrusted with a dark fur; the breath is highly offensive; the whole body exhibits a livid yellow in many cases, but not in all; hæmorrhages break forth from the mouth, ears, and nostrils; dark and fetid stools are discharged; hiccoughs; the pulse sinks, and death follows very quickly. These are the usual symptoms, but there is considerable variation.

TREATMENT.

Indications of Cure.—The great object to be accomplished in the treatment of this kind of fever is, to use the most prompt and energetic means to expel the poison from the system.

1. The arterial excitement must be moderated, if excessive.
2. Excite a healthy action of the stomach and liver, which is always in a very morbid condition.
3. Remove local congestions.
4. Correct the putrescent state of the fluids.

5. Support the strength of the patient; to accomplish which, attend to the following:

The only safe treatment is stimulation. In all cases where debility is great, obstruction exists in some part of the system, but especially in the skin. Hence the insensible perspiration, by which several pounds are daily discharged from a healthy subject, is checked, and the matter thus accumulated is retained in the system, or carried off by other channels, producing diseased action. The skin is especially inactive in yellow fever, and so is the liver. Hence the bile, a fluid necessary to digestion, instead of being discharged into the duodenum, is distributed through the system, and reaches the skin to be thrown off by perspiration; but as the skin also is inactive, and perspiration consequently checked, this bile is retained at the surface. Hence the dryness and *yellowness* of the skin. The stomach and bowels also are paralyzed; hence the loss of appetite and inability to digest. Under this theory of causes and symptoms, *the indication of cure*, to use technical language, is to excite action where it is most deficient, in the stomach, bowels, liver, and skin; and this can be done only by stimulants. The first step is to clear the stomach by an *emetic*; the second, the bowels by a brisk purgative: a diaphoretic should be swallowed, and the patient placed in a water or vapour bath at a moderate temperature at first, which is to be augmented according to the patient's strength, not exceeding 120° of Fahrenheit, till perspiration appears; and, while in the bath, the patient should occasionally drink of catnip or other herb tea. On leaving the bath the patient should be placed in a *warm* bed, well covered with blankets, to promote perspiration. After perspiration has ceased, the bed clothing should be gradually removed, till only enough remains for comfort and the prevention of cold.

We venture to say that this practice will cure most cases of yellow fever, and are told that it is almost uniformly successful among the French and Spanish physicians at Havana, while the Americans and English are slaughtering with calomel and the lancet. All physicians who have attended yellow fever, will admit that perspiration will save the patient; a proof of our theory about obstruction of the skin. They also know that when perspiration first appears its odour is offensive, and that it dyes linen of a yellow or brown colour; additional proofs of our theory about obstruction in the liver, and of the diversion of the bile from the stomach to the surface. The hinge of our practice is a determination of the vital energies from the centre to the surface, and the excitement of the skin; these are to be obtained only by clearing the stomach and bowels of unnatural loads, and exciting perspiration, and sponging the surface often with ley water.

Such is the treatment in general; but, to be more particular, I will treat first of the stomach.

The Stomach.—The stomach in this complaint is in a very irritable and morbid state, in consequence of a secretion of acrid, vitiated bile from the liver. Probably an acid of a peculiar nature is generated. It therefore becomes necessary to use the most prompt and energetic means to bring about a healthy state of these organs. Emetics have been proscribed by almost all practitioners, by reason of the extreme irritability which exists; and that, too, very justly, except an opportunity offers to prescribe before this state of the stomach appears, previous to which a vegetable emetic may be given with safety and advantage. It will have a tendency to mitigate the violence of the disease, and act favourably upon the liver.

The Bowels.—It is indispensably necessary, in any stage of this fever, to administer brisk purgatives. The same kind may be given as directed in

the preceding disease, viz., the *common* or *anti-bilious physic*. When the stomach is overloaded with bilious matter, it often acts as a mild emetic, then as a cathartic, evacuating the stomach and first passages thoroughly, and exerting a healthy action upon the liver and the whole alimentary canal. These purgatives relieve the head, lessen the fever, and in every respect improve the condition of the patient.

Where the stomach is very irritable and excessive vomiting prevails, such medicine must be given as is calculated to allay it. The neutralizing mixture for this purpose is excellent.

One table-spoonful of the above may be taken at a dose, and repeated every half hour until it ceases. This will be found an admirable remedy for removing nausea and vomiting, which prevail in this fever.

One writer states that in some instances the vomiting has been known to cease upon the application of a large poultice of mustard flour to the stomach and feet, which ought not to occasion inflammation of the skin.

A mustard plaster will be found far preferable to blisters. It will be necessary to give a purgative every day, and, if the attack is very violent, twice a day, particularly in the first stage of the disease. I have been called where delirium was present from an accumulation of bilious matter in the system inducing fever, in which the administration of a brisk cathartic has restored the patient to a sane state of mind, diminished the fever, and apparently cut short the disease at once, or within twenty-four or forty-eight hours. The quantities of offensive or bilious matter discharged have been truly surprising. In one instance the health officer had previously been giving only an infusion or the tincture of *snake-root* as a tonic.

The Skin.—It is inconceivably important to attend to the skin. The dry, hot, and parched state of the skin points out the necessity of promoting perspiration. An infusion of *boneset*, drank very freely, has an admirable effect, by promoting sweating; a quart may be drank in the shortest space of time. This infusion appears to act upon all the excretions; and we have some well-authenticated cases of its having performed a perfect cure in yellow fever, without any other medicine, except the addition of a little brandy. Should this alone fail of producing perspiration, a tea-spoonful of the *sudorific* or *sweating drops* may be taken, till free perspiration is produced.

When the stomach becomes no longer able to bear it, or should they cause too much sickness, *cold water*, except when there is great perspiration, and *cream of tartar* water may be taken; also, *lemonade, infusions of mint, catnip, balm, &c.**

The Surface.—The whole surface of the body, as early as possible, must be thoroughly bathed with *weak ley* every two hours through the day and night if the patient does not sleep, or as often as the fever increases. This will have a remarkable effect in allaying the febrile excitement. The transition from pain to relief, by this application, is truly surprising, not only in this, but in all febrile diseases.

The Feet.—It is equally important to bathe the feet morning and night

* *Yellow and other Fevers.*—It is stated that, in the year 1793, when the yellow fever raged in Philadelphia, a person was seized with it, and deserted by every one. He dreamed that could he procure the "*beloved* or *holy blessed thistle*," (*Carduus Benedictus.*) he would soon be cured, having been accustomed to use it while in Europe. Through the Health Committee he obtained it, made a tea, drank freely of it, and he soon recovered.

Henry states in his Herbal on this plant as follows: As a sweating medicine, a wine glassful every two hours of the strong decoction in bed. He says it is good in fevers, and makes an excellent bitter, as follows: Prepare four ounces of the dry herb in two quarts of cold spring water: take half a tumbler three or four times a day.

This equalizes the circulation, and thereby prevents local congestions and a determination of blood to the head. If the patient cannot rise from his bed, it may be done in a recumbent position.

The Abdomen.—Oftentimes the abdomen is tender, and becomes swollen from the irritation of the intestines. When this is the case, apply warm fomentations to it. *Hops* and *wormwood*, boiled in vinegar and enclosed in a flannel bag, must be applied to it.

The Head.—If there is great determination to the head, delirium, &c , a towel may be dipped in a mixture of *spirits*, *vinegar*, and *water*, to which has been added a little *salt*.

Anodynes.—Anodynes may be given if the patient is very restless and unable to sleep. Fifteen grains or a tea-spoonful of the *diaphoretic powders* must be given night and morning, and repeated every two hours if the pain is not removed or sleep procured. The ordinary effects of opium is prevented by this peculiar compound. It induces sleep without increasing the fever; but its diaphoretic properties lessen it.

Antiseptics.—In a great tendency to putrescency yeast may be freely given, as much as the stomach will bear. It may be mixed with a little milk and molasses. If there is great prostration and sinking, wine may be drank, mixed with water and given warm.

Cold Affusion.—Should the fever prove refractory under this treatment, or should it not readily yield, the cold affusion must be used. The whole body must be repeatedly and thoroughly bathed with cold water, until the fever abates.

Give internally, if there remains any irritability of the stomach and great thirst, the following liquid: Take sal æratus, (*bi-carbonas potassæ*,) a tea-spoonful, (1 drachm;) mint water or tea, 8 oz.; mix: give a table-spoonful every three hours through the day.

This alkaline liquid will allay the irritability of the stomach, correct the putrid state of the fluids, and act favourably on the skin, and is admirably calculated to neutralize the acidity and poison in the stomach and intestines.

Cream of tartar whey is a very valuable drink, and which may be occasionally taken.

Boneset is also a very valuable remedy in yellow fever. A Mr. Gilbert Fowler, of this city, was attacked with this fever in the year 1805, and the only medicine that he took was the following: A strong decoction of boneset, two quarts; French brandy, half a pint. The whole to be taken as soon as possible, and as warm. This, from its action upon all the excretions, stomach, skin, &c., soon arrested the disease, and he recovered.

Mr. David Whitehead, of this city, in the year 1794, while the yellow fever raged here, was attacked with the disease, and having been told of the salutary effects of the *boneset*, he commenced taking a strong decoction of it, with the addition of *Virginia snake-root*. In fifteen or twenty minutes he drank two quarts of the tea, and such was the effect upon the system that it cut short the fever at once.

Thus it seems that simple *plants* are very effectual in removing even the most formidable diseases; but in these days of prevalent error, and prejudice they are despised, rejected, and trampled underfoot. This very plant just mentioned was likewise found of singular efficacy in a remittent or intermittent fever which prevailed during the American war among the soldiers. The physician of the regiment, or the nurse, I know not which, went into the meadow and collected a large quantity of the *thoroughwort* or *boneset*, and put it into a large iron kettle, boiled it until it became a strong decoction,

and then administered it to all that were sick with the fever. The consequence was, that the whole of the sick recovered rapidly and in the most surprising manner. It also had an astonishing effect in the remittent fever, which prevailed in another section of the country.

There are numerous other authorities to prove the superiority of the vegetable over the mineral practice.

Dr. Hosack states in a letter to the mayor of New York, on the yellow fever, that, however humbling it is to the pride of medical science, a certain quaker of this city cured more patients by giving *catnip tea* and *castor oil*, than the rest of the faculty!*

Cold Water.—The patien. may also in this disease take cold water. It is not only very refreshing, but diminishes the fever, and is a valuable auxiliary in curing the disease. I know a man in this city who was in the most hopeless condition with yellow fever, and who was forbid by his physician to taste any cold water; he procured it in a clandestine manner and drank it very freely, which caused perspiration and removed the fever in a very short space of time, without any other medicine. Nature in such cases seems to point out the cure.

In concluding this section on the treatment of yellow fever, I will partly recapitulate.

First. Negatively.—Be careful not to administer a particle of *mercury;* it is almost as dangerous as the disease itself. Abstain from *bleeding;* it will hasten the disease by the debility which it induces.

Second. Positively.—The treatment in this disease must be very prompt and energetic. The whole secret of curing it depends upon the means made use of to open all the excretions, and that as soon as possible before the stage of collapse or prostration ensues; and all this is effected in a similar manner as it is in other types of fever, with this difference, that the treatment must be more active.

There are three principal things to be relied upon in arresting this disease.

1. *Cathartics.*—I find none so good in this as well as in most febrile diseases, as that which I have before recommended.

2. *Sudorific or Sweating Medicine.*—The *sudorific* or *sweating drops* must be administered, a large tea-spoonful at a dose, every hour, till free and copious perspiration ensues; to be given in half a pint of *catnip tea*, and to be kept up during the fever. After which let an infusion of *boneset* be drank, warm. Should these drops at any time prove too stimulating, substitute the *diaphoretic powders*. The medicated vapour bath may be advantageously used in this and other types of fever in their commencement.

A very skilful French physician, who practised many years ago in Philadelphia, was in the habit of saying, that as soon as he got his patients (afflicted with this fever) into a free perspiration he pronounced them out of danger.

Since writing the preceding I have been favoured with a small treatise upon the nature and cause of yellow fever, in which my views are farther confirmed. The writer thus remarks:

* Allow me to add this truth, however humiliating it may be to the pride of science, and I mention it in confirmation of the good effects of this comparatively mild treatment, that, in the yellow fever of 1798, under the direction of Richardson Underhill, a member of the Society of Friends, who, like another Howard, volunteered his services to the poor, on that memorable occasion a greater proportion of persons ill of that disease were cured by means of *castor oil* and *catnip*, than by those more active prescriptions employed by many of the physicians of our city. With the hope that these suggestions may be useful,

I am, dear sir, &c., DAVID HOSACK.

THE HON. CADWALLADER D. COLDEN.

"On the subject of a remedy permit me to state, from undoubted information, that in most parts of the West Indies there are now regular-bred nurses, who take with them their large bathing tubs, and first immerge their patients in a warm bath; rubbing them with cloths, squeezing over them warmed lime and lemon juice, and causing them to drink plentifully of lemonade and other diluting drinks. If a perspiration succeed, they clap their hands in signs of safety. They also administer emetics and gentle purges, if necessary. This '*sudorific*' practice seldom fails of cure, if the *golden moment* be not lost, and if applied immediately on the first attack of cold chills, and before the mucus begins to form in the stomach and external fever sets in, which is about the second on third day. As this said mucus or phlegm accumulates, through the body into the stomach, after a check of the perspiration, the fever, as a counteracting effect, increases in its struggle to relieve the patient.

These West Indians have no terrors of *contagion;* they neither speak of nor heed its importation or exportation; they know its *true cause*, and call yellow fever the highest grade of indigenous bilious fevers among them. They have already, in most of the islands, rendered its effect mild and manageable to a great extent among themselves, and may, by this simple practice, '*within reach of everybody*,' ultimately neutralize its consequences, perhaps to its final melioration.

That I may be fully understood, I beg leave to explain my own simple view of this *said check* of the perspiration, now so little regarded.

Our bodies are externally covered with a kind of net-work, called skin, consisting of innumerable *pores*, which expand with heat and contract with cold. In perfect health these pores emit a constant *insensible* fluid or steam, and, when the body is agitated, appears in a visible sweat. Through these pores by far the greater portion of our food is discharged. When sudden cold seizes on a healthy body, these pores experience shivering and chills, which draw them shut, and the fluids cease to be discharged through them *externally*. This I apprehend to be a check of the perspiration, and may be more or less general over the whole body. Its effect also is the precise manner in which yellow fever begins, viz., with chills. It is then *kind nature* instantly commences the work of relief through a reaction of internal heat or fever. To effect this, the blood is set in rapid motion through the body, and the pulse, from its natural beat of about seventy-five, is made to strike more than one hundred times in a minute. This heat or fever, in the order of nature, reacts with all its power on the external cold 'infection,' and a perspiration is thereby frequently forced on bodies in previous good health by the mere rapid motion of the blood, without any other aid than this increase of nature's fever heat. If the warm drinks and bathing practice, as above stated, be instantly applied on the first attack of cold, nature receives a powerful auxiliary (in her own way, through an external and internal heat) toward an increased motion of the blood; and if a profuse sweat be the consequence, nine times out of ten the pores open and assume their functions, and the patient is relieved in a few days. If an attack of cold in this season of the year be a *relapse* on bodies previously unwell, and the efforts to produce perspiration fail, the heat or fever puts on an alarming *external* appearance on or about the second or third day, and continues to act with a proportionate, though natural and necessary, vigour toward a restoration. In these extremities we are most inclined to tamper with the patient, who ought not to be otherwise acted upon until the

paroxysm of fever shall abate. To practice on this fever as a *cause*, in my view of it, is *death;* to treat it as a friend, is life!

A fever pervades animated nature, and almost instantly follows diseases of every kind. It is then an *effect*, not a *cause;* a *remedy*, not a *disease*, and ought to be promoted as a *friend* to *destroy* an *enemy*, WHEN ITSELF WILL DISAPPEAR! It is nature's restorative. The medical practitioner is rarely called until the second stage of diseases; he finds the patient in high fever; 'pestilential yellow fever' is declared! In 1793–95, and '98, (and as the young practitioner had been taught to practice,) in went the lancet, down went the calomel and jalap, all to *kill the fever*, treating it as a *cause*. The fever is lessened, and the patient lapses in a *stupor*. Again, the fever (deemed to be the dire enemy) rouses the patient for life into action; other 'copious bleedings were then had, and purges repeated' to the entire emptiness of the body of its blood and the bowels of their sustenance! The fever is broken. The patient becomes cool and easy, is not emaciated, conceits himself well, walks erect at flighty intervals, though in a general *stupor* THROUGH WANT OF FEVER, *and dies apparently cool and* WITHOUT FEVER!

The great danger in all diseases is the application of too much art interrupting the efforts of nature.*

If the 'sudorific' practice shall prevail, it is confidently believed that our fall fevers will be rendered mild, as they are daily becoming in the West Indies, from a true knowledge of their causes and management. Nature will then be studied by the common people, in her *health* and her *diseases*, on the broad basis of her elements, in every climate, and especially in our own. Disputations about non-entities will then be heard of no more, at least among the real students of nature, and particularly those of the reformed faculty."

3. *The Surface.*—The whole surface from the neck to the feet must be drenched, and effectually rubbed and bathed with strong leached ley water, used sometimes tepid and sometimes cold, as it may most diminish febrile excitement.

These, and the auxiliary means recommended in the preceding chapter, will be found a very superior and sovereign remedy for the yellow fever, called in any reasonable time.

REGIMEN.

Diet in this fever is almost out of the question, as patients seldom can eat anything; but should the patient desire it, he may take a little panado, Indian meal gruel, or barley water. A very grateful and nourishing drink is made by toasting bread very brown and soaking it in water, and then drinking the water. It is good for the nausea; is cooling and nourishing. For a change, *lemonade*, *currant jelly*, *tamarind*, and *apple water* may be drank. *Buttermilk*, moderately acid, and mixed with water, is very refrigerant. *Vegetable acids* of all kinds are very agreeable to the patient, and very antiseptic.

Cool Air.—Cool air is as necessary to the patient as medicine. The room

* This is declared of George Washington, the Father of his Country, who is believed to have sunk into premature death by this practice of bleeding, so repeatedly performed on him. It is believed that thousands have since fallen by like practice; and millions may yet fall from a misapplication and disregard of the only true means of relief, through a multiplicity of frivolous and false hypotheses.

must be kept clean and well ventilated, by opening the windows, removing the bed-curtains, and placing the bed, when practicable, in the middle of the room. Vinegar and water applied to the head, on a cloth or napkin, lessens the pain and heat of it, and thus affords great relief by rendering the intellects clearer and lessening delirium. Washing the face, hands, and feet often with the same liquid will prove equally serviceable and refreshing.

Quietude.—Company, noise, and conversation must be avoided. As much encouragement must be held out to the patient as the symptoms will warrant; but never, no, never deceive or flatter him by creating false hopes of recovery. Any physician who is guilty of this, is answerable to his conscience and to the Bar of God.

A young man, whose veracity can be relied upon, states that, during his residence in New Orleans, he, with two others, was seized with the yellow fever, and his case was pronounced hopeless. He had an irresistible desire for cold water, which was denied him; one night, in the absence of his nurse, he reached a basin of soap-suds, and such was his intolerable thirst, that he greedily drank it. The consequence was, a free perspiration, a remission of the symptoms, convalescence, and recovery; while the other two, affected with the same fever, died. May we not draw a practical inference from this fact:

1. That nature often in this manner points out the cure, and we ought, therefore, to be always careful to watch and follow her dictates.

2. We may also learn from this fact, as well as numerous others, the *antifebrile* properties of water.

3. We may also infer that the soap which was mixed with the water might have contributed to the cure, and, therefore, may contain great medicinal properties.

"To prevent the yellow fever," says Elisha Morrel, Esq., "A Catholic bishop in the West Indies, aged about eighty, informed a physician of this city, who was there as surgeon on board one of our naval ships, that he had been much exposed to the yellow fever, in the worst cases, and he never had any attack of it in his life. His preventive was, taking charcoal daily. The physician farther states, that he gave the same to the men on board of the vessel, and not one man took the disease."

Moral reflections.—"What striking instances of the transitory nature of life does such a disease afford! We see men, exulting in the bloom of youth and prime of health and strength, in three or four days numbered with the dead. Our gayest companions, our most amiable friends, in less than a week are laid in the dust. When we have been daily witnessing these scenes around us, who can avoid reflecting that *his turn may be next?* yet the mind, when habituated to the most afflictive and extraordinary events, becomes hardened and views them with indifference. Disease and death, the most dreadful accidents which can affect the human frame, when made familiar to the sight, cease to inspire dread, and are ranked with the most common occurrences."

Amerited tribute.—The New Orleans *Crescent City* awards high praise to Mrs. Shall, the proprietress of the City Hotel, for her attention and kindness to the sick of that city during the prevalence of the epidemic, not only in 1841, but past seasons. It is stated that in 1830 Mad. Shall had in her house upward of sixty yellow fever cases, only one of which proved fatal. This year she had eighteen cases, with only one death. And all this principally

attributable, under Providence, to her skilful and kind nursing. Besides this, she has visited neighbourhoods and sufferers, carrying the balm of health in her hands. This is indeed the reality of the poet's vision, who wrote of woman:

"When pain and anguish wring the brow,
A ministering angel thou."

SECTION IV.

SPOTTED FEVER. (*Typhus Petechialis.*)

DESCRIPTION.

"PERHAPS there is no disease," says Hand, "which so soon makes the tongue to falter, the knees to totter, locks up the senses, alienates the mind, and with unconquerable weakness saps the very basis of our life, as spotted fever. It is not confined to any season, and it has not been observed to choose any peculiar aspect or atmosphere, but visiting in turn the bleak ridge and the banks of the clear stream."

This very formidable disease made its first appearance in our country in the town of Medfield, Massachusetts, in the year 1806. Subsequently to that period it has occasionally been recognised as an epidemic in various parts of the New England states, in the state of New York, and on the borders of Canada. In 1810 it prevailed with mortal rage in Worcester, Massachusetts, and in the autumn of 1812 and winter of 1813 the same or distinct epidemic visited the army of the United States, stationed at Greenbush, and at various other situations, where its destroying power has scarcely been exceeded by military slaughter. It was prevalent also in Connecticut and Vermont, and a considerable number of fatal cases occurred likewise in Boston, both among the inhabitants and the soldiers quartered in that metropolis. It has usually occurred during the cold weather of winter and spring, and its continuance has been protracted in some seasons to May and June, chiefly in the interior of the country.

CAUSES

We have never heard any cause assigned for this fever; but it would appear that it arises from a peculiar morbid state of the atmosphere, engendering some specific virus, or poison different from any other. The paleness of the surface which sometimes attends the disease, and the partial or total want of reaction, show that the blood is forcibly and powerfully driven from the surface to the internal organs. The congestion or accumulation of blood is sometimes so great, that the heart and arteries are incapable of exerting the least power to counteract the cause of the disease: hence they sink immediately under its withering influence. Dissections demonstrate a morbid state of the heart and lungs with their contiguous membranes.

SYMPTOMS.

Though the leading features of this enemy are always the same, yet his dress is endlessly varied.

To enumerate symptoms: Some patients are seized with violent pains in

the stomach, head, joints, and limbs; and frequently the pain is confined to a single point; often to a single toe or finger. Some have a violent ague and shaking, and yet are not sensible of cold; and some have no heat. Some were taken suddenly, totally blind, or impenetrably deaf; others were not affected at all in those organs. A palsy of a member was not unfrequent, and a strange numbness was felt in the nose and face of some, which led them to be rubbing their face, and that for hours. Some had raving or furious delirium, others a playful or hysteric alienation of mind, while others were more shrewd than before. Some were conscious of their sinking, yet seemed not to mind it. Some fell into a snoring lethargic sleep, from which nothing would rouse them. Some were so painfully sensible as to complain of the slightest touch or motion, while others felt not the pricks of needles, nor even the contact of living coals.

Dr. Miner, of Middletown, (Conn.,) said in some cases the stomach was perfectly torpid, like a leather bag; the most powerful stimulants conveyed into it did no good; while in others there was dreadful gastric (stomach) irritability, immediately ejecting everything swallowed. The pulse was commonly feeble, frequent, irregular, and often interrupted. In some cases it seemed inflated, yet would disappear upon the slightest pressure. Sometimes, when the pulse was gone in the wrist, the arteries of the neck would be seen beating with seemingly impatient and fretful motion.

Bleedings were frequent from different parts of the body, and often fatal. Purple spots appeared in some, from oozing of blood from the relaxed vessels of the true skin, yet without sufficient force to penetrate or elevate the scarf skin, and spreading to various sizes, from a point to that of a shilling; and assuming different hues, from scarlet to black. In this disease, however, there are often no spots nor fever at all, and the patient is in many cases dead before fever could form.

From the onset a clay-like coldness came over the whole system, and all efforts to restore genial warmth were frequently unavailing. The tongue was in some cases clear and moist, in others dry, in others bloodless; in the progress of the disease it commonly turns brown or black. The swallowing was often difficult, from canker in the throat or from palsy of the parts. *Nausea* and vomiting commonly harassed the patient from first to last; *yet the contents of the stomach were not at all vitiated.* The bowels seldom suffered at all. A horrid sensation of cold was felt in the stomach, as if ice was melting there; this symptom, as well as that of puking, was greatly aggravated by drinking cold water or any weak beverage. Patients who inquired for water could not distinguish it from brandy.

Dr. Wolcott states the case of a medical gentleman, a relative of his, who was suddenly seized with strong, fixed pain in his shoulder. The patient undertook to open a vain in his arm, but the blood was so stagnated that it would not flow. The patient and his friends became alarmed, and sent for a council of physicians, who arrived in time to investigate his case. The pain in the shoulder, still increasing, became terribly severe, and he screamed aloud. "Gentlemen," said the patient to the physicians, "what do you think of my case? I request you to speak without reserve, and name, if you can, my disorder. Do not hesitate to tell me whether you think I can or cannot survive. I beseech you do not deceive me. I wish to know the worst." "Doctor," said the physicians, "we would not give you unseasonable alarm, but as you have requested us to express our opinon, we, as in duty bound, must tell you that we think your disease very nearly resembles (if it is not identified with) the spotted fever, and that your case is desperate."

"Give me opium," said the patient, "the pain is intolerable, I cannot bear it." Opium, in substance, was accordingly immediately administered, of which he took in a short time a piece as large as a butternut, but without any alleviation of the pain. At length he swooned away, and sunk into the arms of death, in sixteen hours from the first attack. During the whole of the tragic scene the pain was constantly fixed in the shoulder. His body was not opened, but the shoulder, after death, exhibited a gangrenous (black and blue) appearance.

The invasion of the disease is generally sudden and violent. The patient is seized in the midst of his usual labour, and oftentimes is struck down suddenly almost as by a stroke of lightning.

TREATMENT.

Indications of Cure.—The indications of cure in this disease are, first, to recall the blood from the internal parts to the surface of the body, by promoting perspiration. Second, to remove urgent symptoms. Third, to sustain the sinking powers of life.

The whole history and symptoms of spotted fever show the absolute necessity of administering such medicines as will cause a copious perspiration.

The means recommended under the other types of fever may be used in this, but given oftener and in greater doses; in conjunction with which the vapour or hot bath may be used. Dr. Miner, who had considerable experience in this disease, says, that not only a warm, but a hot bath should be used. An infusion of the *boneset* or *thoroughwort* is highly recommended. A small quantity of brandy may be added, and taken as warm and as often as possible.

Purgatives should be daily given; and when the patient is in great distress, twenty grains of the *diaphoretic powders* may be repeated every two hours. In clay-like coldness of the surface let it be thoroughly bathed with *capsicum* (*cayenne pepper*) and *brandy* in suitable proportions, simmered and applied as warm as the patient can bear it. A tea-spoonful of the pepper may be given internally in a tumbler of *mint tea* every hour or two, until warmth of the system is restored or reaction takes place. The medicated vapour bath may also be used to produce perspiration. The feet must be frequently bathed in warm or hot water. When the head is much affected, tepid water may be applied to the temples and forehead. *Sinapisms* can also be applied to the feet. If there is pain and oppression at the chest, warm applications should be applied to it. Infusions of *snake-root*, *chamomile*, *catnip*, *balm*, &c., may likewise be given. Should the violence of the disease be directed to the bowels, apply fomentations of hops and vinegar. Give also injections. If there is much retching and vomiting, give small quantities of brandy and essence of peppermint, mixed, or the neutralizing mixture. If this should not stop the retching, let the mixture be given as recommended for vomiting under yellow fever.

If great sinking comes on in the course of the disease, give a wine glass of yeast every two hours; also wine or porter.

Dr. Hand says: Under this view of the subject, we see what must decide when doctors disagree, the cases giving laws to the prescriber, and the symptoms pointing, with iron index, to the only means which can save the patient from sinking, viz., *cordial, stimulating medicine, and nourishing diet.* 'The pressure of the disease and the remaining strength must determine the kind and quantity of means; and the range is between going into a warm bed,

with drinking *pennyroyal*, *horsemint*, *spearmint*, or *peppermint tea*, and hot or vapour bath, with *brandy*, *laudanum*, *ether*, &c.

Begin the treatment by putting the patient into a warm bath, apply flannels wrung out of hot water, or bladders of hot water, to the sides and feet of the patient. If the disease be more than slight, give as a drink hot wine whey, milk punch, or warm wine and water. If obstinate nausea or puking attend, give *hot brandy*, a spoonful at a time, with only water enough to keep it from strangling; put a *capsicum and a mustard plaster* over the stomach. If lethargic symptoms come on, apply the same on the nape of the neck, and increase all the stimulants.

If the warmth and moisture return, and the pulse is raised, there is hope; yet the patient must be kept up, and the disease kept at bay by anodynes, in full portions every two or three hours, *essence of peppermint*, *spearmint*, &c.

The late Dr. Anthony Hunn, of Kentucky, who had considerable experience in this complaint, cured every case by plunging his patients immediately into a hot bath.

The whole indication of cure in this disease is to bring on reaction, to recall the poison which is mixed with the blood and thrown to the centre, which can only be done by inducing a copious perspiration in the most prompt and energetic manner.

If I mistake not, where sweating was produced in this complaint, recovery invariably followed, while bleeding, mercury, &c., only aggravated it.

The *sweating* or *sudorific drops*, then, given freely, and bathing the surface repeatedly with *capsicum* or *cayenne pepper*, with spirits or brandy simmered a few minutes together, and applied over the whole surface as hot and as often as possible, together with bathing the feet, the hot bath, and an infusion of *peppermint* given as warm as can be drank, constitute the principal remedies in this type of fever.

CHAPTER IX.

SCARLET FEVER. (*Scarlatina.*)

DESCRIPTION.

The scarlet fever is so denominated from the scarlet colour and eruptions which appear on the body. It occurs at all seasons of the year, but generally in the fall or beginning of winter. It often seizes whole families, but children and young persons are more subject to it. It is divided into three principal kinds: Simple *scarlatina*, when the throat is not affected; *scarlatina anginosa*, when the throat is affected; when accompanied with symptoms of putrescency and malignancy, it is called *scarlatina maligna*. The latter two kinds are generally blended together. There has been a dispute whether the scarlet fever and malignant sore throat are the same diseases, or only a variety of the same. "It is now pretty generally admitted," says a writer, "that the scarlet fever in all its forms, as well as putrid sore throat, (*cynanche maligna*,) is produced by the same specific contagion."

CAUSES.

Scarlet fever arises from a specific contagious effluvia.

SYMPTOMS.

The *scarlet fever* commences with a chill and shivering, like other kinds of fever, with nausea and often vomiting, great sickness succeeded by heat, thirst, and headache; sometimes in a very mild degree, at others more violent. The pulse is accelerated, the breathing is frequent or interrupted, the eyes red, and eyelids swollen. In two or three days the flesh begins to swell, a pricking sensation is experienced, and an eruption appears on the body in the form of a red stain or blotch, or rather of a *fiery redness*. It usually appears first upon the face, breast, and arms, then over the whole body, of a uniform red colour. In about three days a gentle perspiration takes place; the effervescence or eruptions disappear; the cuticle peels off, and there remains a kind of branny scales dispersed over the whole body, which sometimes reappears two or three times.

The scarlet fever may be distinguished from the *measles*, by the eruptions of the former (*scarlatina*) being more of a fiery redness, and diffused over the whole body, and not as in measles, in distinct spots; nor is it accompanied with any cough or a weeping or watering of the eyes; and the efflorescence of the measles does not appear till about two days later than scarlet fever. Where the disease appears in the simplest form, there is little required from art; a simple course of treatment soon removes it.

SECTION I.

SCARLATINA ANGINOSA. (*Affecting the Throat.*)

Scarlatina anginosa, in several instances, approaches very near to the malignant form. The patient is seized not only with a coldness and shivering, but likewise with great languor, debility, and sickness, succeeded by heat, nausea, vomiting of bilious matter, soreness of the throat, inflammation, and ulceration in the tonsils, &c., a frequent and laborious breathing, and a quick and small depressed pulse. When the efflorescence appears, which is usually on the third day, it brings no relief; on the contrary, the symptoms are much aggravated, and fresh ones arise.

In the progress of the disease one universal redness, unattended, however, by any pustular eruption, pervades the face, body, and limbs, which parts appear somewhat swollen. The eyes and nostrils partake likewise more or less of the redness, and in proportion as the former have an inflamed appearance, so does the tendency to delirium prevail.

On the first attack the throat and mouth are often much inflamed; but this is usually soon succeeded by grayish sloughs, which give the parts a speckled appearance, and render the breath more or less fetid. The patient is often cut off in a few days: and even if he recovers, it will be by slow degrees; dropsical swellings, or tumours of the parotid and other glands, slowly suppurating, being very apt to follow.

"The patient," says an author, "complains of a stiffness in the neck, with acute pain in the back of the head. The throat is sore and inflamed, exhibiting a shining redness of a deeper colour than in common inflammatory sore throat, and interspersed with pale or ash-coloured spots. In many cases the affection of the throat is among the first symptoms, a dark red line extending along the curtain and lower part of the uvula. The breath is highly offensive, the tongue is covered with a yellow mucus or thick brown fur, and the inside of the lips is beset with vesicles containing an acid matter, which

excoriates the corners of the mouth and other parts. In the progress of the disease the inside of the nose becomes red and inflamed, and a thin acrid matter issues from the nostrils, which corrodes the skin wherever applied."

SECTION II.

SCARLATINA MALIGNA. (*Malignant Species.*)

"This," says Dr. Thatcher, "is the cynanche maligna of Cullen, the ulcerated or putrid sore throat of Huxham and other authors. This form of the disease has several symptoms in common with scarlatina anginosa. It comes on with rigours, dejection of spirits, pain in the head and back, giddiness, vomiting, and much general oppression. The eruption comes out in blotches, or small points scattered over the body and extremities, of a dark purplish or livid hue. The fever is intense and progresses with rapidity, but manifesting an augmentation in the evening and slight remission in the morning. The pulse is small, indistinct, and irregular. There is a very great determination of blood to the brain, producing redness of the eyes, intolerance of light, throbbing, pain of the head, and delirium or lethargy. The whole neck sometimes swells and assumes a dark red colour. It sometimes happens that the malignant kind appears without any affection or efflorescence of the skin, as scarlet fever in some cases presents itself without any ulceration of the throat. As the sloughs about the mouth spread they generally become of a darker colour, the whole internal mouth and throat are at length covered with thick sloughs, which, when they fall off, discover ulcers very deeply seated, and the parts appear quite black, and the sloughs often extend throughout the whole of the intestines. The eruption sometimes suddenly recedes, an alarming train of symptoms ensues, as also when the eruption suddenly assumes a very pale and livid appearance. The symptoms called putrid and malignant are now conspicuous, a dissolved state of the blood is indicated by inky vessels, oozings of black gore from the nostrils, gangrenous appearances of the throat, spots upon the skin, and hæmorrhages from various parts of the body. This kind generally arrives at its height about the fifth or sixth day, but in some fatal cases the scene closes as early as on the third day. The inflammation on some occasions effects the eustachian tube, producing ulceration in the internal ear, and often extending to the glands of the mouth, which become swelled and painful. The malignant or putrid sore throat may be distinguished from the inflammatory by the looseness and vomiting, the puffy and dark-coloured redness attending the swelling, and by the fetid ulcers of the throat, covered with white or ash-coloured sloughs. It may also be distinguished by the slight delirium appearing early in the disease, and by the sudden weakness with which the patient was seized.

TREATMENT.

Indications of Cure.—From the appearance of the eruptions on the skin soon after the commencement of the disease, it is very evident that this fever is produced by some morbific matter taken into the circulation through the medium of the lungs, and that the increased action in the system is a healthy effort of nature to throw off such humours or morbific matter; it is, therefore, our duty to aid nature in her salutary efforts. If unable to expel to the surface the irritating cause from the system, she must be assisted by *sudori-*

fics, or sweating medicine. If her struggles are too great, by which too much inflammation is produced, she must then be restrained or moderated.

Emetics.—Emetics will be found very useful in the commencement of the fever; none will have a better effect than pulverized *ipecac* and *lobelia*, given in suitable doses, according to the age of the patient. It is not always necessary, however, to give them; but if there is soreness of the throat, and an accumulation of mucus impeding respiration, a mild emetic will have a beneficial effect. When given in the forming stage of the disease, or at a very early period, they abate the febrile symptoms, and render the subsequent effects of the fever less violent, and in some cases cure the disease, or render it extremely light: Withering recommends them throughout the whole course of the fever; but the best effects arise from their use in the early stages of it. One great effect derived from emetics in febrile diseases is, the sympathetic action they exert upon the capillary system. The connexion which exists between the stomach and skin is so great, that if a healthy action is exerted upon one, the other experiences a correspondent good effect; they appear to overcome that tension and stricture which exist in the pores of the skin, by their stimulating effects.

Purgatives.—Purgatives, in this fever as well as others, are highly useful. Hamilton, on purgative medicines, speaks of their utility in scarlet fever in the highest terms; they moderate arterial action, relieve the pain in the head, prevent delirium, and remove the morbid state of the liver, stomach, and whole alimentary canal. It must be borne in mind, however, that there is a great difference in purgatives; some pass through the stomach and bowels without carrying away or removing any feculent matter, or altering the condition of the mucous membrane. In general, castor oil and salts may be mentioned among this class of purgatives; no kind will be found so useful as the *common purgative*, or *mandrake;* a tea-spoonful of this powder to be put in a tea-cup or tumbler, with a lump of sugar sufficient to sweeten, then add a gill of boiling water or *mint* tea: an adult will take the whole of it when cool; but it must be recollected that children, among whom scarlatina more generally prevails, must take a dose proportioned to their age. This thoroughly cleanses the stomach and bowels, and invariably benefits the patient; it may be repeated every other morning, or at farthest every third morning.

Sudorifics.—Since the mischief exists in the capillary vessels or the skin, the exhalents not performing their offices, such medicines must be given as will open the pores and cause perspiration; in this state of the system there are two difficulties: First, obstructed perspiration, by which the poison is retained in the system; and, second, the want of perspirable matter, by which the process of evaporation is carried on, keeping the skin moist and cool. Hence it is necessary to give *sudorifics* to promote the excretions of the skin.

In the first stages of scarlet fever the *feet must be bathed*, and an infusion or tea of *saffron* freely given; also a tea-spoonful of the *diaphoretic powders*, with a tumbler of *catnip tea*, to be repeated occasionally until moderate perspiration follows. The same dose may afterward be given to keep up a determination to the surface, except the temperature of the body is too great to admit of this stimulating diaphoretic medicine, which is very seldom the case, especially if every other excretion of the body has been duly attended to. Should this be the case, however, we must rely on those medicines which produce perspiration without increasing the heat of the body, such as the *ipecac pills* or *tincture*, with an infusion of *catnip*, *amaranthus*, &c., which

may be drank warm, and drank freely through the day. An infusion or tea made of *lemon balm* or *sage* may likewise be given as a change; in general it is sufficient to keep the skin moist.

Bathing the Surface.—Cold affusions have been highly extolled by some authors, as well as cold drinks. I grant that cold water may often be applied to the surface with impunity, and often with benefit, even in the different forms of scarlet fever; but injury may arise from its indiscriminate use. The subsequent effects arising from the repeated and sudden applications of cold to the body, under a great state of excitement, especially in an eruptive disease like scarlatina, may prevent the appearance of the eruption, and cause a recession of them after they have appeared, and thus prove fatal. Bathing the surface with warm rain water, to which has been added a little ley, is far preferable. No dangerous reaction takes place from the use of tepid, as from cold water; nor will any danger result from it whatever, as it is a most valuable auxiliary, and the use of it cannot be too strongly recommended. We may say with Bateman, when speaking of the application of cold water: "We are possessed of no physical agent, as far as my experience has taught me, by which the functions of the animal economy are controlled with so much certainty, safety, and promptitude, as by the application of cold water to the skin, under the augmented heat of scarlatina and of some other fevers. This expedient combines in itself all the medicinal properties which are indicated in this state of disease, and which we should scarcely expect it to possess, for it is not only the most effectual *febrifuge*, the 'febrifugum magnum,' as a reverend author (Dr. Hancock) long ago called it, but it is, in fact, the only *sudorific* or *anodyne* which will not disappoint the expectation of the practitioner under these circumstances. I have had the satisfaction, in numerous instances, of witnessing the immediate improvement of the symptoms and the rapid change in the countenance of the patient, produced by washing the skin. Invariably in the course of a few minutes the pulse has been diminished in frequency, the thirst abated, the tongue has become moist, a general free perspiration has broken forth, the skin has become soft and cool, and the eyes have brightened; and these indications of relief have been speedily followed by a calm and refreshing sleep."

It may be applied as often as the fever increases; but should be omitted if there is any chill, or if the skin is not above the natural temperature. It may then, however, be applied very warm.

When the throat is sore and the swallowing difficult, which often occurs in the scarlet fever, it must be bathed with the *rheumatic liquid—soap liniment* is very good—apply warm; after which bind flannel around the neck. The throat may be gargled, if it can be conveniently done, with the following: Take sage, hyssop, or sumach berries, equal parts: make a strong tea or decoction, sweeten with honey, add a small piece of borax, and gargle often.

Mustard Plasters, made weak, may be applied to the feet.

Anodynes.—I have always seen the happiest effects from anodynes, combined with diaphoretics.

Diaphoretic Powders.—Our *diaphoretic powders* are attended with very excellent effects. They tranquillize the system, mitigate pain, procure sleep, lessen the fever by causing perspiration, and will have the desired effect in any and every state or stage of the complaint, particularly after the evacuants recommended have been made. They may be given at night to procure sleep if the patient is very restless.

Whenever there are symptoms of inflammation of the brain present,

apply tepid or lukewarm water, or cooling lotions to the head, such as a mixture of *water*, *vinegar*, and *brandy*, with frequently bathing the feet and applying *sinapisms*, will do more to allay it than drawing any quantity of blood from the system. If no other means would subdue it, leeches or cupping might be resorted to; but I have never found either necessary in all my practice.

SECTION III.

MALIGNANT SCARLET FEVER.

I HAVE hitherto dwelt on the severe and ordinary form or type of scarlet fever, and the treatment given is, in general, sufficient for the other species; but when it assumes a more formidable and malignant character, some variation is called for.

Should the attack of *scarlatina* be very violent, it is liable to run into a malignant type. It is, therefore, necessary to use the most energetic means to arrest the fever in its incipient stage. For in proportion as the disease is controlled and checked in its commencement, will its subsequent course become more manageable, and be attended with less violence and danger. When it is judiciously treated in the beginning, the patient is safely and speedily conveyed through it, without that exhaustion and prostration which results from the lamentable and dangerous prostrating practice of orthodox physicians, or physicians of the old school. Should, however, the patient become very feeble and debilitated, a restorative or stimulating course of treatment must be pursued. Wine whey may be given; also yeast: infusions of *Virginia snake-root* and *chamomile flowers;* they may be repeated two or three times a day. An infusion of *boneset* may likewise be given.

Expectorants or Emetics.—When the throat becomes very much affected, emetics are very valuable.

"Emetics," says Armstrong, "are the best gargles, where the throat is much obstructed from an accumulation of tenacious mucus; their operation effectually dislodges that morbid secretion for a time; often greatly relieves the respiration; improves the appearance of the ulcers; and they may be repeated at any time during the continuance of the fever, whenever the respiration or swallowing becomes much impeded by an accumulation of phlegm." Expectorants are in general to be preferred.

Dr. Thomas, in treating of this species of scarlet fever, thus remarks: "At the commencement of cynanche maligna it has been found of service to give a gentle emetic: wherefore a few grains of ipecacuanha may be taken. It will not fail to bring off a considerable quantity of acrid matter, which, by getting into the bowels, might induce a diarrhœa—an affection to be avoided by every possible means, as always adding to debility and endangering the life of the patient. During the first four-and-twenty hours an emetic will, in some cases, cut short the progress of the disease, and in all it will be likely to break the force of it.

The grand objects to be kept in view in this malignant disease should be, to check or counteract the septic tendency which prevails, to wash off from time to time the acrid matter from the fauces, and to obviate debility. Should any particular symptoms arise during its progress which may tend to aggravate the disease, such as diarrhœa, hæmorrhage, &c., they ought to be immediately attended to."

"In the year 1785, at which period I was in the West Indies, this disease

prevailed in the Island of Saint Christopher's as a universal epidemic among children, and a vast number of them fell martyrs to it in spite of the utmost endeavours of the profession to save them; when at last the most happy effects were derived from the use of the remedy, the basis of which was cayenne pepper: Take two table-spoonsful of red or cayenne pepper; a tea-spoonful of salt; add half a pint of boiling water; in fifteen minutes after add half a pint of vinegar; let it stand an hour, then strain through a fine cloth; give two table-spoonsful every half hour.

The speedy and good effect produced by the use of this medicine in every case in which it was tried, evidently points out the utility of giving warm aromatics, which will bring on a timely separation of the sloughs, as well as other antiseptics, to correct the tendency in the parts to gangrene.

Since the period above-mentioned, many practitioners in the United Kingdom have become vouchers for the very beneficial effects which were derived in various instances of cynanche maligna from this medicine. My own experience induces me to speak well of it also."

Yeast may be freely given if the putrid symptoms continue, and the throat may likewise be occasionally gargled with it. It must be mixed with milk, and a little honey added. If suppression of urine occurs, give a strong tea or infusion of *spearmint*, with a little *spirits of nitre*, and apply *hops* and *vinegar*, simmered together, over the region of the bladder.

Mortification.—The face and inside of the mouth often mortify in scarlet fever, particularly after the use of mercury. When this is the case, apply a *yeast poultice* over the part, and let the mouth be gargled with it: or apply it to the parts in the best manner possible.

Dropsy.—The dropsy sometimes follows the scarlet fever; generally in consequence of mal-practice. It occurs after bleeding or mercury. When this is the case, treat it the same as common dropsy.

ADDITIONAL REMARKS.

Since scarlet fever in some of its forms is so extensively prevalent, and often so very fatal, a judicious course of treatment is imperiously called for, and I know that such treatment is recommended above. It has been so repeatedly tested, that it no longer remains a subject of doubt; but is established on sure, safe, and unerring principles, and to be known needs but to be tried. The practice of bleeding and giving mercury, in this and other diseases, will no longer exist when people learn the difference between the two kinds of treatment.

A few drops of the tincture of *belladonna* is said to be a preventive for this fever; and, to relieve the symptoms of the disease, ten drops may be taken three times a day, in a little water, both as a cure and antidote.

CHAPTER X.

MILIARY FEVER. (*Febris Miliaris.*)

DESCRIPTION.

In this fever nature seems to be endeavouring to drive out the morbific matter to the surface of the body, by increasing her secretory and excretory motions.

It derives its name from the small pustules or bladders which appear on the skin, resembling in shape and size the seeds of *millet*. These pustules or pimples are either red or white, and sometimes both are mixed together; sometimes they are distinct, and sometimes in clusters.

Sometimes this is a primary disease, but more frequently symptomatic of some other malady; as the small-pox, measles, inflammation, putrid or nervous fever, &c. In all which cases it is generally the effect of too stimulating a regimen.

CAUSES.

This fever is sometimes occasioned by violent passions and emotions of the mind; by great evacuations, a weak, watery diet, rainy seasons; by the immoderate use of cold, crude, and unripe fruits, impure water, and unwholesome provisions. It may also be occasioned by the suppression of any customary evacuations, as issues, setons, ulcers, the bleeding piles, or the menstrual flux.

It attacks both sexes, all ages, and constitutions, but more frequently people of weakly and delicate constitutions. This disease in child-bed women is often occasioned by great costiveness during pregnancy, and very frequently by their excessive use of green trash and other improper things, in which pregnant women are too apt to indulge; but indolence and inactivity are the most general causes.

SYMPTOMS.

This fever, when it is a primary disease, generally commences with a violent cold stage, succeeded by great heat, anxiety, and sighing; the heat soon increases, and produces a profuse sweat, preceded by a sense of pricking in the skin; and it has a peculiar, strong, disagreeable smell. The period of eruption is indeterminate; it seldom attacks the face, but appears first on the neck and breast, and thence spreads all over the body. The patient is restless, and sometimes delirious; the tongue appears white, and the hands shake, with often a burning heat in the palms; and in child-bed women the milk generally ceases, and also the other discharges. After the patient has experienced an itching or pricking pain under the skin, innumerable small pustules, of a red or white colour, begin to appear. These symptoms then generally abate, the pulse becomes fuller and softer, the skin moist, and the sweat, as the disease advances, has a more fetid smell: the oppression on the breast and spirits usually subsides, and the customary evacuations regularly return. Though the eruption appears at no fixed period, nor is of any regular certain duration, the pustules generally begin to dry and fall off about the sixth or seventh day from the eruption, occasioning a very troublesome itching in the skin.

The pustules usually come out on the third or fourth day when the eruption is critical; but when symptomatical, they may appear at any time of the disease. When the pustules appear and disappear by turns, there is always danger; but when they disappear suddenly and do not appear again, the danger is very great.

In child-bed women the pustules are commonly at first filled with clear water, afterward they become yellowish. Sometimes those of a red colour are interspersed. When these only appear, the disease is named a rash.

TREATMENT.

If the stomach is oppressed, and there be nausea, &c., give a mild emetic, and then treat it on the same principle as other fever, particularly *scarlatina*. We must not increase the sweat too much, for fear of debility.

Moderate doses of physic must be occasionally given, and such liquids and infusions drank as cause a moisture of the skin. For this purpose give *saffron* and *snake-root* tea. The feet must be daily immersed in ley water, and the body frequently bathed with the same, and applied warm. There is very often danger in this, as well as in many other diseases, of doing too much. A particular attention only is required to all the *secretions* and *excretions*. Here, as we have before stated, consists the "grand secret" of curing febrile, as well as most other complaints.

REGIMEN.

In all eruptive fevers, of whatever kind, the chief point is to prevent tne sudden disappearing of the pustules, and to promote their maturation and expulsion. For this purpose the patient must be kept in such a temperature as neither to expel the eruption too fast nor to cause it to retreat prematurely. The diet and drink ought, therefore, to be in a moderate degree nourishing and cordial, but neither strong nor heating. The patient's chamber ought neither to be kept too hot nor cold, and he should not be too much covered with clothes. Above all, the mind is to be kept easy and cheerful; nothing so certainly causes an eruption to recede as fear, or the apprehension of danger.

The food must be weak chicken broth, with bread, panado, Indian meal gruel, &c., to a gill of which may be added a spoonful or two of wine, as the patient's strength requires, with a few grains of salt and a little sugar. Good apples, roasted or boiled, with other ripe fruits of an opening, cooling nature, may be eaten.

The drink may be suited to the state of the patient's strength and spirits. If these be pretty good, the drink ought to be weak; as *catnip* and *balm* tea.

When the patient's spirits are low, and the eruption does not rise sufficiently, his drink must be a little more generous; as wine whey, sharpened with the juice of orange or lemon, and made stronger or weaker, as circumstances may require.

Sometimes the miliary fever approaches toward a putrid nature, in which case the patient's strength must be supported with generous cordials, joined with acids; and if the degree of putrescence be great, the *Peruvian bark* and *yeast* must be administered. If the head be much affected, the body must be kept open by injections or clysters.

CHAPTER XI.

PUERPERAL FEVER. (*Febris Puerperalis.*)

DESCRIPTION.

This is a disease peculiar to women after delivery, particularly in lying-in hospitals, and is supposed to occasion the death of nearly one-half who

die in child-bed. Three-fourths of those who have been attacked have fallen victims to it. It commences, in general, three or four days, sometimes a week, after delivery; and it appears to occur oftentimes as an epidemic.

CAUSES.

Various reasons have been assigned as the cause of puerperal fever; but none very satisfactory seems as yet to have been given. A check of perspiration from cold, combined with a moist and unhealthy state of the atmosphere, probably gives rise to it. Morbific matter is retained, enters the circulation, and is thrown upon some of the viscera of the abdomen, exciting inflammation and other symptoms of the complaint; or it may cause the complaint, by mixing with the circulating mass.

The late Dr. Young, professor of midwifery at Edinburgh, was of opinion that the puerperal fever, strictly so called, is in every instance the consequence of contagion; but he contends that the contagious matter of this disease is capable only of producing its effects, in consequence of a peculiar predisposition given by delivery and its consequences. In support of this doctrine he remarks, in a paper read in the Philosophical Society of that city, that for many years the disease was altogether unknown in the lying-in ward of the Royal Infirmary, at Edinburgh; but that after it was once introduced into the hospital almost every woman was, in a short time after delivery, attacked with it; although prior to delivery she may have lain even for weeks together, not only in the same ward with the infected, but even in the very next bed. He farther remarks, that it was only eradicated from the hospital in consequence of the wards being entirely emptied, thoroughly ventilated, and newly painted. After these processes puerperal females in the hospitals remained as free from the disease as formerly.

With respect to the infectious nature of this fever, a great contrariety of sentiment has indeed existed: the probability is in favour of its being so; but it is nearly impossible to form a decided opinion on the subject. Doubtless it will be the safest practice to consider it as infectious, and to cut off all intercourse of pregnant and parturient women with those who labour under it.

It is certain that puerperal fever has a strong tendency to the typhoid type in an advanced stage, although at its commencement, or during the first twenty-four or thirty-six hours, it is usually attended with inflammatory symptoms, and even with topical inflammation in the abdominal organs, but more particularly the peritonæum, or membrane which envelopes them.

SYMPTOMS.

Puerperal fever commences with rigour or chills, which is succeeded by great heat, and frequently ends in perspiration; but its characteristic symptom, by which it is always accompanied, is pain in the region of the womb, which, although generally attended with remarkable aggravations, resembling after pains, has no complete intermission as they always have. It is increased by motion, attended by extreme soreness and tenderness to the touch, and accompanied by a pulse so rapid as to rise to 140 to 160 in a few hours after the attack.

The pulse, especially during malignant epidemics, although full and strong, and but moderately quick, at the very commencement of the disease, in a few hours becomes very rapid, running up to 160 strokes in a minute, and is

then proportionably small; at the same time the patient's strength rapidly fails, her countenance expresses great pain and anxiety, and her head is frequently affected with pain, giddiness, and with a ringing in her ears. The secretion of milk is generally suppressed, the breast becomes suddenly flaccid; the bowels in the commencement are generally costive, but a diarrhœa is soon apt to come on. The belly swells to a great extent, and the tenderness is spread over the whole abdomen, compelling the patient to lie immoveable in one posture, with her extremities drawn up, and generally on her back; and such is the extreme tenderness, that she cannot bear the weight of the bed-clothes. The tongue soon becomes foul, the stomach is oppressed with nausea, and the teeth collect a brown sordes, the breath offensive, purple or red spots appear, and extreme debility comes on sooner in this than in any fever which begins with such decided symptoms of inflammation, and makes a sudden and total change of its nature into that of a putrid and malignant fever.

This complaint frequently attacks within forty-eight hours, generally within five days after delivery, and, in general, the earlier the attack the more violent are its symptoms. It runs through its course in a very short period of time, ending in death in a few days: indeed a great and sudden mortality, particularly in some malignant epidemics, has proved the most distinguishing, as well as the most terrible, characteristic of the disease. In some epidemics very few indeed, in others none, it is said, have recovered; some patients have died within eighteen hours, and most of the fatal cases have ended within three or four days; but when it has ended in recovery, the symptoms have often been protracted to six or eight days, with occasional but irregular intermissions and exacerbations; and it has been remarked that, after very considerable remissions, indeed after such complete intermissions as to afford the most sanguine hopes of recovery, the attack has been renewed with increased danger.

Such in general is the course of the puerperal fever; the symptoms of which, however, may be often varied, according to the constitution of the patient, the degree of the disease, and its earlier or later invasion after delivery.

TREATMENT.

It requires no discernment to see the pernicious effect of the common practice. Some bleed five or six times in succession, which soon sinks the patient into the arms of death. Mercury is also given at the same time, which hastens dissolution.

Indications of Cure.—The principal indication in the cure of this disease is, to subdue the inflammatory symptoms; to effect which, sweating and purging are the two Herculean remedies to be relied on.

The *sweating drops* or *diaphoretic powders* may be given every two hours until free perspiration is produced. Physicians in general place their greatest reliance on copious bleeding. We place *our* greatest reliance on perspiration. It must be continued until the inflammatory symptoms subside. Bathing the surface and feet greatly promotes it.

Purgatives are exceedingly important in reducing this fever. The same may be given as recommended in the preceding fevers, and repeated at least once a day. If vomiting supervenes, give the neutralizing mixture.

To alleviate the soreness and distension of the abdomen, we may recommend the application of fomentations, both inwardly and externally; in-

wardly, by injecting every four or six hours, and administering emollient clysters from time to time; and externally, by applying flannel cloths, wrung out in a warm decoction of *bitter herbs or hops*, over the whole region of the abdomen; and these ought to be renewed as often as they become cold, taking due care that they are not so wet as to run about the bed and incommode the patient.

After suitable evacuations *diaphoretic powders* may be given, particularly at bed-time. The dose must depend on the severity of the pain, and the age and constitution of the patient. It may be repeated every two hours, until there is a mitigation of the symptoms and a moisture of the skin.

Should putrid or malignant symptoms commence, *yeast* must be given, as much as the stomach will bear. Wine and porter may likewise occasionally be given. An infusion of *chamomile flowers*, cold, may be taken to keep up the strength of the patient, as also nourishing diet, &c. Dr. Guinot recommends ten or twelve grains of the *carbonate of potash* to be given in any proper vehicle three times a day, not only in puerperal fever, but in all diseases connected with the secretion of milk. This treatment he recommends under the idea that the disease is occasioned by a predominance of acid. Other practitioners likewise speak of its good effects. Ten drops of *muriatic acid* in a gill of water may be given three times a day.

It is stated that a Dr. Cockroft, of this city, an old school doctor, lost eleven out of twelve cases, or nineteen out of twenty cases of child-bed fever the present season. Some time ago it was also stated that the same physician lost three cases of scarlet fever in one family. So much for the practice of blood-letting and mercury! Such men pass current for skilful physicians!

REGIMEN.

A very light, cooling diet should be used in the commencement of the disease, and in the latter stages of it a more nutritious diet recommended; Indian meal gruel, panado, toast, and bread water, barley water, rice water, &c.

PRECAUTION.

When the disease prevails as an epidemic among puerperal women, or occurs in a lying-in hospital, all communication ought immediately to be cut off between those who are affected, and such as have been confined, or expect shortly to be so; and, in order to root out the disease and stifle contagion, we should have recourse to fumigations, as advised under the head of malignant fever, and afterward to painting, white-washing, and a free ventilation.

CHAPTER XII.

HECTIC FEVER. (*Febris Hectica.*)

DESCRIPTION

Hectic fever is generally characterized by a frequent, weak pulse; flushing in the face, the hands, or the feet; night sweats or diarrhœa. A wound

or local injury upon a healthy person produces a fever that may properly be termed symptomatic or sympathetic.

CAUSES.

The cause of hectic fever is almost always some local disease. This form of fever appears to be a feeble and hopeless struggle of the system about to be overpowered, without any apparent tendency to remove the disease. It arises from long-continued irritation of any severe local disease upon the constitution, whether accompanied with suppuration or not. It arises from the absorption of pus or matter from tubercles on the lungs, diseased hip-joints, white-swelling, curvature of the spine, scrofula, abscesses, ulcers, &c.

SYMPTOMS.

Hectic fever arises at different periods after the commencement of any serious local disease. This may be owing to some peculiarity of constitution, or the particular structure or functions of the part diseased. The more weak and feeble the patient naturally is, and the more severe and incurable the local disease, the sooner do the hectic symptoms generally begin, and the more rapid is their progress.

Sometimes the first accessions of this fever are almost imperceptible; a very slight degree of emaciation; a pulse a little quicker than ordinary, with a trivial increase of heat, particularly after meals, being the only early symptoms. As the fever becomes more established, the symptoms generally run as follows: A frequent small pulse, quickens toward evening, but is always ten or twenty strokes in a minute faster than in health; moist skin, pale, copious urine, with sediment; a good deal of debility; the tongue seldom so much furred as in most other fevers, its edges being of a bright red colour, and the papillæ swollen and prominent; a florid, circumscribed suffusion of the cheeks; loss of appetite; sometimes an ejection of all food from the stomach; a great readiness to be thrown into sweats; profuse nocturnal perspirations; frequently a constitutional purging; repeated chills and flushes of heat; derangement of the nervous system; loss of sleep; indigestion; heartburn; flatulence. When, however, the biliary system is undisturbed, the digestive powers are little impaired, and the appetite remains good to the last. In an advanced stage the hair falls off and the nails become bent.

Hectic fever is more or less remittent, but never wholly intermittent. It is observed that the frequency of the pulse is generally from 100 to 140 in a minute, seldom falling below 100 even in the time of a remission, and in some cases never being under 120; while in other constitutions the pulse of health may be so low that 90 strokes in a minute would be enough to indicate an exacerbation.

TREATMENT.

In the cure of hectic fever attention must first be directed to the exciting cause of the disease, before it can be removed. If it arises from the absorption of matter in consequence of an ulcer, how can it be cured while the primary affection exists? As soon as the disease is relieved or cured, which produces the febrile disturbance, the fever will cease. But when the local disease cannot be cured, which causes it, it must of course be mitigated, which in almost every instance can be effected. Under such circumstances

the hectic fever must be treated on general principles. The bowels must be regulated by laxative medicines; equal parts of *charcoal* and *magnesia* are excellent, given daily; and upon every accession of the fever the surface must be bathed with *tepid ley water*.

Attention must be paid to the debility, which almost invariably exists. And it must be borne in mind that this debility arises in consequence of the night sweats which attend this form of fever, caused by a relaxation of the capillary vessels. They may be checked in almost every instance by administering *fifteen or twenty drops of elixir of vitriol*, in a gill of water or tea of any kind, once or twice a day. At night is the most suitable time to give them. During the day give an infusion or tea of the *crawley* or *blessed thistle*, to be taken cool. This drink may be changed, and an infusion of the *Virginia snake-root* may be taken. It acts both as a diaphoretic and tonic.

Everything of a stimulating nature should be avoided, but a nutritious diet may be taken. Equal parts of *cloves*, *nutmeg*, *cinnamon*, pulverized and mixed, and put in wine; one ounce to one quart; dose, half a wine glass two or three times a day.

CHAPTER XIII.

INFANTILE REMITTENT FEVER.

DESCRIPTION.

This fever is peculiar to children from the age of one to five or six. It comes on very gradually, manifesting itself by irregularity, which is sometimes by costiveness, and at other times by relaxations of the bowels.

CAUSES.

This fever is evidently symptomatic of disordered digestion. It depends perhaps partly upon absorption of the putrid contents of the intestines.

SYMPTOMS.

On its coming on, the child becomes fretful, his lips are dry, his hands hot, his breath short, the head painful, and his pulse quick, being often 120 in a minute; he is unwilling to stir or speak, the sleep is disturbed by startings, and the food rejected; sometimes very little is discharged from the intestines, and at others too much, the stools being often mucous or slimy; some children are delirious, or lost and stupid; many for a time are speechless. In the course of the day there are several slight accessions of fever, during which the child is usually drowsy; in the intervals of these paroxysms he appears tolerably well, though at times more peevish than usual.

These symptoms probably manifest themselves more or less for eight or ten days, when all at once a more violent paroxysm of fever will arise, preceded by a shivering fit and by vomiting. The pulse rises to 140 in a minute; the cheeks are flushed, the drowsiness is much increased, and the child keeps picking almost incessantly at the skin of the lips and nose, and of the angles of the eyes.

This species of fever is mild at its commencement, slow in its progress, and very uncertain in its event. In some respects it resembles dropsy in the head, and, I apprehend, is sometimes mistaken for it; but in the latter there are occasional screamings, with much tossing of the hands above the head, intolerance of light, with more or less of squinting; whereas in the remittent fever of infants none of these appearances are to be met with. In this fever the desire for food is destroyed, and the little patient will take neither aliment nor medicine. In dropsy of the brain, on the contrary, he will usually take whatever is offered to him, without reluctance. The fæces are remarkably changed from their natural appearances in the remittent fever, being sometimes black, and smelling like putrid mud; and at others they are curdled, with shreds of coagulable lymph floating in a dark greenish-coloured fluid.

TREATMENT.

The indications of cure in this disease are, to clear the stomach by a gentle emetic and the bowels by purgatives, to moderate or remove the febrile symptoms, and then, if necessary, to restore the lost energy by tonics.

A dose of *senna* and *manna* may be administered to the child twice or thrice a week. The surface may be bathed with tepid water occasionally; also the feet. If there is pain, apply linen cloths, wetted in vinegar and water, on the head. Keep up a determination to the surface, by giving diaphoretic medicines. The *diaphoretic powders*, a tea made of *elder flowers*, *balm*, &c., may be occasionally drank throughout the day. When the fever is nearly subdued, and there is great debility, give tonics, such as an infusion of equal parts of *colombo*, *gentian*, and *chamomile:* give a little occasionally. If there is acidity in the stomach, give the *neutralizing mixture*. A milk and vegetable diet must be observed.

PREVENTION OF FEVERS.

In concluding this class of diseases I shall give the recipe for preparing the disinfecting gas, as follows: Take nitre, pulverized, six drachms; oil of vitriol, six drachms: mix them in a tea-cup by adding to the nitre one drachm at a time of the oil; the cup to be placed, during the operation, on a hot or heated brick, shovel, hearth, or any other heated substance. The mixture to be stirred with a tobacco pipe or piece of iron.

In the treatment of the foregoing class of diseases I have recommended several kinds of herbs or plants to promote perspiration; but there are others equally as good, and some perhaps better, which may be substituted when it is necessary. Every climate abounds with medicinal plants, the virtues of which, if known, are sufficient to remove all curable diseases; those, therefore, in Europe and other parts of the world who wish to prescribe for the sick according to the principles of this work, will find no difficulty in selecting suitable kinds of herbs to serve as auxiliaries in the treatment of febrile and other diseases. In England, Culpepper, John Gerard, and other herbalists describe many very good medicinal plants, and others are already known in *domestic practice*.

In France there is a botanical work in several volumes, with figures, entitled *Introduction a la Flore des Environs de Paris, by Bulliard;* from these and similar works many valuable medical agents can be chosen.

Dr. Shecut, a botanic physician, who has practised in fevers in South

Carolina, states that the following treatment will cure ninety-nine cases in every hundred of intermittent and remittent fevers. "First, when in *intermittent fever* there is the least fever or remission, give an *emetic*, afterward a *purgative*. The next morning give the *tonic*, which is prepared as follows: Take charcoal, freshly pulverized, two ounces; black or white oak bark, pulverized, (or bayberry will answer,) two ounces; sassafras, bark of the root, one ounce; aloes, one drachm; cloves, half an ounce; capsicum, half an ounce: pulverize all, and add to one quart of Madeira wine. Then add two drachms of laudanum. Those who prefer, may put the powder in one pint of boiling water; then add one pint of spirits or brandy, and four ounces of sugar; or even a tea will answer. Dose, a table-spoonful every second or third hour until the chill approaches; then perspiration must be excited; the *tonic* to be continued till cured; and afterward for some time, to prevent a relapse." Should this prove a remedy, it will be found very convenient when bark or quinine are very costly and difficult to procure. Dr. Shecut states that he gives the same mixture in remittent fever with success, as soon as there is a little remission; but it appears that it must, from its stimulating properties, increase the fever before there is a perfect intermission.

INFLAMMATORY DISEASES.

CLASS II.

CHARACTER.

This class of diseases is characterized by heat, pain, redness, and swelling. Inflammation is either general or local; *general*, when the system is extensively affected; *local*, when confined to some particular part or organ. It is also acute or chronic; *acute*, when the attack is severe and the symptoms violent; *chronic*, when the inflammatory action has in a considerable degree subsided, and the disease becomes less painful and less violent in its character, and protracted. There are several varieties of inflammation, occasioned by difference of cause, function, or texture of the part affected.

All the viscera are subject to inflammation. The various phenomena or symptoms exhibited in this class of diseases are owing more to the peculiar structure of the part inflamed than to the exciting cause.

CHAPTER I.

INFLAMMATION OF THE BRAIN. (*Phrenitis.*)

DESCRIPTION.

Phrenitis is an inflammation of the membranes, or brain itself. When it occurs independent of any other disease it is termed *primary*. It is called symptomatic when it is produced by some other disease, as fevers, eruptions, &c.

CAUSES.

Proximate Cause.—Whatever causes a determination of blood to the head

produces an inflammation of the brain or membranes. Hence we find tha in this complaint the blood recedes from the extremities, thereby producing coldness, and flows in an unusual quantity to the head, in consequence of which there is heat, inflammation, &c.

Remote Causes.—The remote causes are, fits of passion, intense application of the mind, great exercise, external violence of any kind, fractures or injuries of the head, intemperance, exposure to great heat of the sun, and suppressed evacuations: animal food, ardent spirits, &c., are exciting causes of this disease. Symptomatic phrenitis is produced by the repulsion of febrile and cutaneous diseases.

SYMPTOMS.

Inflammation of the brain exhibits the following symptoms: It usually commences with inflammatory fever, flushed countenance, redness of the eyes, intolerance of light and sound, headache, watchfulness, and delirium. The patient experiences a fulness of the head, which is usually attended with a throbbing of the temporal arteries. The patient becomes restless, his sleep is disturbed, or wholly forsakes him. There is a peculiar disposition in the patient to injure or destroy himself, which he often accomplishes if he obtains a proper instrument. It is often preceded by great pain in the stomach, which, no doubt, is produced by sympathy of the brain. Sometimes fierce delirium does not commence within several days after the attack. The pain is sometimes in other parts of the head. The hearing is acute, sometimes the reverse. There is usually preternatural heat, while the extremities, particularly the feet, are cold, showing evidently a determination of blood to the head. The patient talks incoherently, and delirium gradually increases, till he arrives at a state of complete phrensy. The complaint sometimes, though rarely, intermits. Respiration is generally deep and slow, and now and then difficult; seldom hurried or frequent. The patient imagines that some persons or evil spirits are constantly pursuing him to take his life, from whom he starts with horror, and no argument or assertion can induce him to believe the contrary. Sometimes there is a discharge of mucus from the nose; occasionally blood. It is usually attended with a tremour of the joints, grinding of the teeth, twitching of the muscles of the face, which is often florid, then suddenly turning pale, with a general derangement of the internal functions and whole system. The length or duration of this disease is very uncertain, as it may prove fatal in a week, at other times it continues for months.

TREATMENT.

Indications of Cure.—The indication of cure is, to divert the blood from the brain by restoring the circulation in the extremities; in other words, by equalizing the circulation.

Treatment.—Bathe the feet in warm water, to which has been added a little pearlash or ley. Let this be repeated at least twice in twenty-four hours.

Purgatives.—Administer a purgative every morning, or every other morning; that kind which acts with peculiar force upon the stomach and first passages. Nothing will be found better than our common physic, to be given as before directed. If the inflammation is very great, apply mustard to the nape of the neck. It will be necessary also to keep up a determination to the surface, by giving a dose of our *fever* or *sweating drops*.

Rubefacients.—Should not this treatment mitigate the symptoms after a few days, apply a *blister plaster* between the shoulders. *Mustard* may be applied to the feet at night. When there is great pain of the head, or delirium, make use of a fomentation of *hops* simmered in vinegar, enclosed in flannel or muslin; to be occasionally repeated.

Anodynes.—Should there be great pain, restlessness, or want of sleep, give a small tea-spoonful of the *diaphoretic powders* in an infusion or tea of *catnip*, to be repeated every night.

A continuance of this course will generally subdue the inflammation in a short time. Cupping or leeching will be found altogether superior to general blood-letting. It relieves the turgid vessels of the brain, and, by its counter-irritating effects, produces immediate relief; but even this operation is seldom, if ever, necessary. Lemonade, cream of tartar, spirits of nitre, and cold water may be taken.

REGIMEN.

The patient must be kept from all noise, and a strict adherence to a light, cooling diet. Nothing of a stimulating nature must be given, either in food or drink.

CHAPTER II.

INFLAMMATION OF THE EAR. (*Otitis.*)

DESCRIPTION.

This is an inflammation of the membranes well furnished with nerves, which are spread upon the internal surface of the ear.

CAUSES.

An inflammation of the ear is usually brought on by exposing the ear to a *partial* current of air. It may arise from cutting the hair of the head very short, particularly in the winter; or any exposure.

SYMPTOMS.

When the ear is inflamed the pain is very acute, attended with more or less fever, and sometimes delirium. Swelling and redness is often perceived externally, attended with throbbing; suppuration occasionally takes place, when a copious discharge of matter follows. This discharge will sometimes continue for years; in which case inject, with a syringe, soap suds, a decoction of white oak, and introduce the *brown ointment*.

TREATMENT.

If the pain be very severe, take hops, (*humulus lupulus,*) a suitable quantity; vinegar and water, equal parts: simmer till the strength is extracted; enclose the hops in linen or flannel, and apply them over the ear

Repeat the same until the pain subsides. Let the feet be bathed in warm water.

Should these means not remove the pain, take oil of sassafras, (*oleum lauri sassafras*,) half an ounce; olive or sweet oil, (*oleum olivarum*,) one ounce; camphor, (*gummi camphora*,) one drachm: mix.

Warm this liniment, and pour a small quantity on a pledget of cotton, and bind over the ear. Provided the pain still continues, drop it in the ear. Also laudanum, juice of roasted onions, equal parts.

If the above fails, give an anodyne. Perspiration may be promoted and a *purgative* given.

The sap of walnut or hickory wood is said to be an infallible remedy for pain in the ear, and is highly recommended for deafness. Take a small stick, put it over the fire or stove, and place a vessel under each end to receive the sap; put it into the ear on cotton, and repeat occasionally. An elderly person states that he obtained it among the Indians, and has known it succeed in numerous cases.

This treatment will almost invariably remove the pain and inflammation of the ear. The complaint more generally attacks children, but adults are subject to it. It sometimes becomes somewhat chronic in its character, and is very protracted. When this is the case, if the means prescribed above should not be sufficient to remove it, apply a *mustard* plaster behind the ear, and also to the bottom of the feet, particularly at night.

PREVENTION.

Great care is necessary in screening the head from any cold or current of air. The head should be covered, particularly at night, and a pledget of cotton or wool applied in the ear.

CHAPTER III.

MUMPS. (*Cynanche Parotidea.*)

DESCRIPTION.

Mumps is a swelling of the glands about the throat, and often occurs as an epidemic. Children of both sexes are more liable to it than adults. It more generally occurs in the spring than at other periods. Cause, Contagion.

SYMPTOMS.

One or both of the parotid glands of the neck become large, hard, and often painful, and sometimes become so large as to impede respiration, and cause a difficulty of swallowing. The swelling is often translated to the testicle and becomes dangerous, increasing for three or four days, then subsides, and wholly disappears. There is usually some fever attending the complaint; other parts are sometimes affected from sympathy. Suppuration sometimes, but rarely, takes place. The contents of the tumour being discharged into the *larynx*, produce suffocation; but this is rarely the case, as the disease usually puts on a mild aspect. The great danger arises from the patient's taking cold.

TREATMENT.

The patient should be directed to keep warm in bed, and perspiration promoted, by drinking freely of diluting liquors, such as an infusion of *balm* tea. If there is costiveness, give a gentle purgative and bathe the feet. Cover the swelling with a pledget of cotton; and should it be very painful or troublesome, it may be bathed with the following liniment: Castile soap, scraped, one drachm; sassafras oil, (*ol. sassafras*,) half an ounce; sweet oil, (*ol. oliv.*,) one ounce; camphor, (*gum camph.*,) three drachms: mix, and apply it three times a day, warm.

In case of a recession (by which this complaint is thrown to the testicle or other parts) an emetic may be taken, and free perspiration must be promoted, by giving one tea-spoonful of the *red* or *sweating drops* every hour, diluted with tea and sweetened. Should suppuration take place, a poultice must be applied, made by adding Indian meal to beer until it is formed into the consistence of a poultice. The above treatment has invariably been found successful.

CHAPTER IV.

QUINSY OR INFLAMMATORY SORE THROAT. (*Cynanche Tonsillaris.*)

DESCRIPTION.

When the tonsils, commonly called the almonds of the ear, or the mucus membrane lining the throat, become inflamed, it is termed *quinsy* or inflammatory sore throat. It generally affects the young and sanguine, and it occurs more especially in the spring and autumn

CAUSES.

The most common causes of this disease are, a sudden check of perspiration, wet clothes, wet feet, damp beds, moist air, drunkenness, acrid or irritating food, &c.

An inflammation of the throat is often occasioned by omitting some part of the covering usually worn about the neck. Singing or speaking loud and long, or whatever strains the throat, may also cause an inflammation of that organ. It may also proceed from pins, bones, or other sharp substances sticking in the throat; by sitting near an open window, or in a room newly plastered or white-washed. This disease is sometimes epidemic and infectious.

When there is chronic inflammation of the throat it ought to be sponged every morning, or oftener, with cold salt water. I have found decided benefit myself from this practice. Lord Byron was cured of the same complaint by constantly bathing his throat with cold water.

SYMPTOMS.

An inflammatory sore throat discovers itself by a difficulty of swallowing and breathing, accompanied by a redness and tumour in one or both tonsils; dryness of the throat; foulness of the tongue; shooting pains in the parts affected; hoarseness of the voice; a frequent but difficult excretion of mucus,

and some small degree of fever. As the disease advances the difficulty of swallowing and breathing becomes greater; the speech is very indistinct; the dryness of the throat and the thirst increase; the tongue swells and is incrusted with a dark fur, and the pulse is full, hard, and frequent, beating from 100 to 140 in a minute. In a few cases small white sloughy spots are to be observed on the tonsils, and in very violent ones there is complete deafness. When the symptoms are considerable, the whole face partakes of it, the eyes are inflamed, and the cheeks florid and swelled; respiration is performed with difficulty, and the patient is obliged to be supported in nearly an erect posture, to prevent suffocation. Even delirium and lethargy sometimes supervene and stop respiration. Sometimes both tonsils are very much inflamed and swelled, so that it becomes exceedingly difficult to give any kind of nourishment. It may terminate in suppuration, and in some cases subsides without it; terminating by what is called resolution. When suppuration takes place, the parts affected become more pale and less painful; a sense of pulsation is felt, and very slight chills. The matter is often discharged into the throat, and passes into the stomach, when immediate relief follows.

TREATMENT.

Indications of Cure.—The first object in the treatment of this disease is, to remove urgent symptoms; the next, to subdue or moderate the inflammation. It is truly astonishing that any person, professing a knowledge of the science of medicine, should make use of the common practice to cure this complaint, especially when it is well known that this very treatment occasioned the death of General Washington, as well as thousands of others.

In the incipient stage of quinsy it is necessary to administer an *emetic*. None answers better than that which we use in complaints generally. This often affords immediate relief. Should the attack, however, be very severe, and the disease continue, the patient will steam the throat with the following preparation: Take wormwood, (*absinthium vulgare*,) hops, (*humulus lupulus*,) catnip, equal parts. Make a strong decoction by boiling one or two hours in equal parts of rain water and vinegar. Put these into a large pitcher, or any convenient vessel, over which place a funnel; then let the patient inhale the steam arising from this for fifteen or twenty minutes each time, to be repeated every two hours until the urgent symptoms are removed. The herbs to be bound on the neck. This generally affords immediate relief, by relaxing the tension of the parts inflamed. The breathing soon becomes easy, and the pain and difficulty of swallowing much less. The above articles may be put into a common tea-pot, and the steam inhaled from the spout.

The following liniment or oil must now be applied to the throat: Take sassafras oil, (*oleum lauri sassafras*,) olive oil, (*oleum olivarum*,) spirits of hartshorn, (*aqua ammoniæ*,) of each half an ounce; add two drachms of gum camphor, (*gummi camphora:*) mix. Warm this preparation and bathe the throat as long as the patient can bear; after which put a piece of flannel around it. This must be repeated occasionally through the day.

It will be necessary also to gargle the throat with the following preparations: A handful of sage; two bunches or heads of sumach berries; add two quarts of boiling water: simmer a short time; then add a tea-spoonful of pulverized alum, and as much saltpetre; when blood-warm add a tea-cupful of good *yeast*, sweetened with molasses or honey: gargle often.

When the acute inflammatory symptoms have subsided, a gargle more

stimulating may be prescribed. The gargles mentioned on page 296 may be used frequently through the day.

A gargle made of weak ley has been found remarkably efficacious where other means have proved useless, particularly where persons have been subject to the quinsy, and when it assumes a chronic character.

Purgatives must be given repeatedly, as they have a great tendency to allay the febrile excitement: the feet must be bathed in warm rain water, to which has been added ashes or a quantity of ley, and perspiration promoted by the vapour bath, or warm drinks, &c. If there is great swelling of the throat, apply a poultice made of slippery elm bark and ley.

Should the disease increase, and exhibit symptoms of suppuration, so as to threaten suffocation, the tongue must be pressed down with the finger or handle of a spoon, and the swelling punctured with a gum lancet.

M. Velpeau, of Paris, highly extols the use of alum for a gargle in quinsy and all kinds of sore throat: Take alum, one ounce; barley water four ounces; apply a little of the alum, fine, on the parts inflamed, with a little stick or brush, or the finger. Many cases are said to have been successfully cured by this simple treatment.

A respectable and aged person states that he has seen the most signal benefit derived from the application of mullein and milk boiled together, and bound on the neck, in the quinsy.

The last case of quinsy I attended was very much aggravated; the inflammation and swelling was so great that it was deemed best to apply two or three leeches. After which I applied *henbane*, (*hyoscyamus*,) simmered with spirits. This treatment appeared to arrest the complaint almost immediately.

REGIMEN.

All food and drinks of a stimulating nature must be avoided. Warm diluent drinks. Nothing cold must be given.

PREVENTION.

Great care must be taken to prevent a check of perspiration. The throat should never be uncovered or exposed to the cold air. A piece of flannel should be worn about the neck. The practice of bathing the feet in weak ley water should by no means be neglected. If persons would sponge their throat and neck daily with cold water, and be careful to keep themselves warm, wear flannel, especially about the throat, use a spare diet, the disease would seldom become very aggravated. It is particularly necessary to guard against drinking cold water when the body has been heated.

The late celebrated Col. Aaron Burr, of this city, a great enemy to the common practice, had been subject to frequent attacks of the quinsy for most of his life, from the age of sixteen years and upward. He had twice tried the orthodox physicians without benefit. He submitted to a similar course of treatment, and it effected a cure.

A cold moist air continuing for some time, or suddenly succeeding a dry and warm state, is extremely prejudicial to health, which causes the fluids to circulate with less velocity, noxious humours are retained, and if not discharged by some excretions, pleurisy, quinsy, coughs, fevers, &c., are produced. The spring of 1842 was remarkable for this kind of weather, and also the complaints above-mentioned.

CHAPTER V.

PUTRID SORE THROAT. (*Cynanche Maligna.*)

DESCRIPTION.

This disease generally affects the glands of the throat, while the common quinsy affects the mucous membrane. In the putrid sore throat there are also cankers, sores, and ulcers in the fauces, together with great debility of the system. In the inflammatory sore throat there is always great difficulty of swallowing, whereas in the other these symptoms are not present.

CAUSES.

The cause of this disease is specific contagion; it is often communicated by infection; when it is not, it most generally arises from cold, in habits predisposed to the disease. Whatever tends to produce putrid or malignant fevers may occasion the putrid ulcerous sore throat; as neglect of cleanliness, unwholesome air, damaged provisions, &c.

SYMPTOMS.

Some consider this disease the same as scarlatina maligna; but, although very similar, there appears in some respect a marked difference. The symptoms of this complaint are chills, fever, stiffness of the neck, soreness and inflammation of the throat. Ash-coloured spots appear upon the inflamed parts, which produce deep ulcerations. The breathing and speaking are attended with a peculiar noise and hoarseness. It is ushered in with sickness, vomiting, looseness, and great anxiety. The pulse in general small, quick, and fluttering. The countenance is often full and bloated, sometimes pale and sunk, and the breath is intolerably offensive. The ulcers become livid or black, and sometimes gangrene to a considerable degree takes place. Putrid symptoms now appear, under which the patient sometimes sinks in a few days. At the close of the disease hæmorrhages from the mouth, nose, and other parts take place.

TREATMENT.

Indication of Cure.—The indication of cure will be, to counteract a putrid tendency and to keep up the strength of the patient. Bleeding and mercury, now generally prescribed, are extremely injurious.

In the first stage of the disease a *mild emetic* may be administered, after which *mild cathartics* may occasionally be given. If there is great soreness and inflammation of the throat, let the patient inhale the steam of the decoction mentioned in the treatment of the common quinsy. The liniment there mentioned may also be applied to the throat.

When putrid ulcers appear in the throat, let it be gargled with a mixture of yeast and milk. It will be necessary also to administer antiseptic medicines; a wine glass of good yeast may be taken every two hours during the day. If the pulse is very weak, and the patient sinks, the system must

be supported by stimulating medicines and liquids. Porter and wine may occasionally be given.

Dr. Thomas speaks in the highest terms of the efficacy of the following formula, which, from experience, I have found very valuable. Two table-spoonsful of cayenne pepper; salt, a tea-spoonful in half a pint of boiling water, and add the same quantity of warm vinegar. Let it stand for about an hour, and strain the liquor through a fine cloth. Dose, two table-spoonsful every half hour. A plaster may be applied to the throat, made by melting equal parts of common *brown soap* and *resin*, to be spread on thin leather or linen.

In the revolutionary war, when the putrid sore throat prevailed in the army and proved very fatal, all means to avoid it proved unavailing, till a French or German physician came and prescribed, when every case recovered. The treatment consisted in a gargle made as follows: Take the *bark* or *berries* of *sumach*, *white oak bark*, white or common *elm bark*, the common high *black-berry root*, of each two parts, or a handful of each; add black *snake-root*, half a handful. Make a strong decoction by boiling well; then strain and sweeten with honey; add a lump of alum, and frequently apply to the parts affected. Also gargle with the same. This soon removed the mass of corruption from the mouth and throat.

CHAPTER VI.

CROUP. (*Cynanche Trachealis.*)

DESCRIPTION.

This is an acute inflammation of the mucous membrane of the trachea or wind-pipe, characterized by fever, cough, and hoarseness, difficulty of breathing, with a considerable degree of spasmodic affection.

CAUSES.

The usual causes of croup are, cold, exposure to a damp atmosphere, and whatever checks perspiration. It prevails chiefly in winter and spring.

SYMPTOMS.

The symptoms of this complaint are, difficulty of breathing, and a peculiar whistling noise. It is attended with a cough, which generally increases until it becomes very troublesome. It occurs in paroxysms, which agitate the whole frame; great thirst, restlessness, and expectoration of mucus, which is raised with a great deal of difficulty. The head is thrown back in great agony, as if attempting to escape suffocation. The cough is generally dry; but if anything is spit up, it has either a purulent appearance, or seems to consist of films resembling portions of a membrane. Where great nausea and frequent retchings prevail, coagulated matter of the same nature is brought up. There is an uneasy sense of heat over the whole body, a continual inclination to change from place to place, and frequency of the pulse. Very often the symptoms differ considerably, and sudden remissions and exacerbations take place.

In an advanced stage of the disease respiration becomes more difficult, and is performed with still greater difficulty and some degree of spasmodic affection, being repeated at longer periods and with greater exertions, until at last it ceases entirely.

The disease has, in a few instances, terminated fatally within twenty-four hours; but more generally, when it proves fatal, it runs on to the fourth or fifth day. In this disease great quantities of lymph are poured out into the trachea or wind-pipe, and bronchial tubes, larynx, &c., which produce the suffocation and many other symptoms attending it.

TREATMENT.

Indications of Cure.—Prompt means should be taken to lessen increased action of the mucous membrane of the wind-pipe, larynx, and bronchial tubes. To accomplish these means, it will be necessary to bathe the feet in weak ley. Give the *expectorant tincture* or the *emetic powder*. To a child of one year old give a common tea-spoonful every twenty minutes until gentle vomiting takes place. This acts with peculiar force upon the trachea, separating or removing the effusion of lymph collected there, by which the breathing becomes easy and all the symptoms more favourable. This must be repeated occasionally, or as often as there are any returns of the severe symptoms or paroxysms. Of the powder give a quarter of a tea-spoonful.

A Purgative may be given a short time after the operation of the emetic, which may be repeated every day until the symptoms abate.

Expectorants.—Should there be great difficulty of expectoration, the following syrup may be given: Take seneca root (*polygala senega*) and squills, of each half a pound; water, eight pounds; boil it slowly till the water is half consumed; strain off the liquor, and add strained honey, four pounds; then boil to six pounds, or the consistence of a syrup; to every pound of this syrup add one quarter of a pound of tincture of lobelia. An ordinary sized tea-spoonful may be given to a child one year old, as often as a paroxysm of coughing occurs, *particularly* if the mucus is discharged with difficulty. This acts as an *expectorant*, *diaphoretic*, and *laxative*. Bathe the chest and throat with the rheumatic liquid.

If the cough proves very troublesome, give occasionally a tea-spoonful of the syrup of garlic. Should not this preparation diminish it in a reasonable time, administer the *pulmonic syrup* according to the directions given. If there is much febrile excitement, let the surface be occasionally bathed, and *mustard plasters* applied to the feet and between the shoulders, and to the chest alternately. Steep hops and vinegar, inhale the steam, and apply to the throat. It is stated that it has cured when all other remedies have failed.

Mrs. Martin, of this city, states that her child is subject to the croup. He is taken suddenly and much distressed. She bathes his throat and chest with a stimulating liniment, and gives a purgative, which invariably relieves him in about half an hour. This treatment has proved very successful in cases of croup where a prospect of recovery has been very small.

Says Dr. McNair, "I have had the misfortune to lose a brother and two sisters by croup. They were attended by one of the best physicians in the state of Maryland, and were all bled from the arm as long as blood could be obtained from that part. After which the largest vein in the neck was opened, all without the least benefit. I mention this to show what quackery is practised under the garb of science."

The inflammation of the pharynx and larynx are of the same nature, produced by the same causes, and require a similar treatment.

CHAPTER VII.

INFLAMMATION OF THE BRONCHIAL TUBES. (*Bronchitis.*)

DESCRIPTION.

This is an inflammation of the mucous membrane of the bronchial tubes, which convey the air into the lungs. It is either chronic or acute. The acute stage very much resembles inflammation of the lungs. The *causes* are the same as inflammation of the lungs.

SYMPTOMS.

It is frequent in cold and variable climates. In its simplest forms it constitutes those protracted catarrhal affections which are so common during winter in old persons, especially in those who are predisposed to cold and coughs. The acute bronchitis generally commences, like a common cold or catarrh, with lassitude, chilliness, slight cough, oppression, and tightness of the chest, with some fever. As the disease increases these symptoms increase, great anxiety of the countenance, respiration more laborious, attended with a wheezing or rattling sound, as if the air were forced through a narrow aperture clogged with a viscid fluid. It is generally attended with hoarseness; respiration is more difficult in the recumbent than in the erect position. At first the cough is dry, but afterward a copious secretion of viscid transparent mucus, resembling the white of eggs, soon occurs, and with it considerable abatement of the violence of the cough ensues. But when the inflammation is about terminating without suppuration, the matter expectorated loses its transparency, and becomes mixed with yellowish, white, or greenish masses, which are scanty at first, but continue to increase more and more, until at last they compose the whole of the expectoration. A severe pain in the forehead, which is aggravated by coughing. When the secretion of mucus into the bronchia is very copious, and respiration is much obstructed, considerable drowsiness occurs. The tongue is white, and covered with transparent mucus; the skin is dry, and its temperature generally but very little above the natural standard.

TREATMENT.

In the acute bronchitis *emetics* and *sudorifics* are the only anchors of hope. The following mixture may be given: Tincture of emetic plant, (*lobelia inflata;*) tincture of blood-root, (*sanguinaria canadensis;*) equal parts: mix Dose, a table-spoonful: *for an infant*, or a child of one year old, a teaspoonful every half hour till vomiting is produced. This may be repeated as often as there is an accumulation of mucus in the bronchial vessels, with difficulty of expectoration, respiration, &c. Twenty-five drops of the *sweating* or *sudorific drops* may afterward be given in tea of any kind every hour until a moisture or perspiration is produced; or the *diaphoretic powders*. The

surface must be frequently bathed with warm water, to which ley must be added. The feet should also be frequently bathed and *mustard* applied.

Purgatives to be administered, to keep the bowels gently open. To relieve the cough, give *pulmonic syrup* or *balsam*, *syrup of poppies*, &c. For adults the same treatment, but doses of medicine in proportion to age.

SECTION I.

CHRONIC INFLAMMATION OF THE BRONCHIA.

This is often the result of acute bronchitis. It is characterized by a troublesome cough, attended with a copious expectoration of viscid, purulent, or a whitish frothy matter; uneasy and somewhat oppressed respiration, accompanied at times with wheezing; more or less weight and uneasiness at the pit of the stomach; loss of appetite; a slightly furred tongue; irregular action of the bowels; a quick and irritated pulse, particularly toward evening; and deep red and scanty urine. The coughing usually occurs in fits of considerable violence, being almost always most severe in the morning on rising from bed, or on passing from warm to a cold air. Sudden atmospheric vicissitudes also seldom fail to increase the violence and frequency of the spells of coughing; and the same effect is usually produced by the inhalation of various vapours, fine dust, and occasionally by the act of swallowing food. Sometimes slight transient pains are felt in the chest; but more frequently no painful sensations whatever are experienced, except immediately after a fit of coughing, when a general aching pain is left for a few moments in the breast.

CAUSES.

Chronic inflammation of the mucous membrane of the bronchia may occur as the sequel of acute bronchitis. It most commonly, however, *arises from neglected catarrh*. It is the consequence sometimes of measles, of hepatic diseases, and of protracted disorders primarily located in the digestive organs. It may proceed directly from the vicissitudes of heat and cold, and from the inhalation of irritating vapours or particles of matter floating in the atmosphere. It occasionally occurs in consequence of hooping-cough, particularly from taking cold while under the influence of this affection.

TREATMENT.

In the chronic form of this complaint emetics may likewise be given, as directed in the acute species, but repeated only at longer intervals. They unload the viscid secretions with which the bronchial cells become gorged. The same syrup may likewise be given as recommended under that head.

From the sympathetic relation which exists between the skin and lining membrane of the bronchial tubes, it is necessary to keep up a regular action of the cutaneous vessels, for in the proportion as we increase the activity of these emunctories, so we lessen the influx of fluids to the lungs. Flannel and proper clothing should be worn to prevent the effects of cold and sudden atmospheric changes. When the cough is very troublesome, two tea-spoonsful of the *syrup of white poppy* may be given to allay irritation. Great attention must be paid to the extremities, that an equal circulation may be produced,

by which the disease will be mitigated. A stimulating or strengthening plaster may be worn upon the chest. Spunging the throat, neck, and chest with cold water daily is an excellent preventive.

CHAPTER VIII.

HOOPING-COUGH. (*Pertussis.*)

DESCRIPTION.

This is a disease known by a convulsive, strangulating cough, with hooping, returning by fits that are usually terminated by vomiting. Children are most commonly the subjects of this disease, and it seems to depend on a specific contagion, which affects them but once in their life. The disease being once produced, the fits of coughing are often repeated without any evident causes; the frequency of the fits may depend upon various exciting causes, such as violent exercise, a full meal, the having taken food of difficult digestion, and irritation of the lungs by dust, smoke, or disagreeable odours. Emotions of the mind may likewise prove an exciting cause

CAUSES.

It is evidently produced by contagion. Its proximate or immediate cause seems to be a viscid matter or phlegm lodged about the bronchia, trachea, and fauces, which sticks so close as to be expectorated with the greatest difficulty.

SYMPTOMS.

The hooping-cough usually comes on with a difficulty of breathing, some degree of thirst, a quick pulse, and other slight febrile symptoms, which are succeeded by a hoarseness, cough, and difficulty of expectoration. These symptoms continue perhaps for a fortnight or more, at the end of which time the disease puts on its peculiar and characteristic form, and is now evident, as the cough becomes convulsive, and is attended with a sound which has been called a hoop.

When the sonorous inspiration has happened, the coughing is again renewed, and continues in the same manner as before, till either a quantity of mucus is thrown up from the lungs, or the contents of the stomach are evacuated by vomiting. The fit is then terminated, and the patient remains free from any other for some time, and shortly afterward returns to the amusements he was employed in before the fit, expresses a desire for food, and when it is given to him takes it greedily. In those cases, however, where the attack has been severe, he often seems much fatigued, makes quick inspirations, and faints.

At the commencement of the disease there is little or no expectoration, or, if any, it consists only of thin mucus; and as long as this is the case, the fits of coughing are frequent and of considerable duration; but on the expectoration becoming free and copious, the fits of coughing are less frequent, as well as of shorter duration.

By the violence of coughing, the free transmission of blood through the lungs is somewhat interrupted, as likewise the free return of blood from

the head, which produces that turgescence and suffusion of the face which commonly attend the attack, and in some instances bring on a hæmorrhage either from the nose or ears.

The disease having arrived at its height, usually continues for some weeks longer, and at length goes off gradually. In some cases it is, however, protracted for several months, or even a year, and sometimes terminates in other complaints.

TREATMENT.

The symptoms of this disease can only be mitigated, not suddenly arrested; but it will run its course.

Emetics.—It is generally reckoned a favourable symptom when a fit of coughing makes the patient vomit. This cleanses the stomach and greatly relieves the cough. It will, therefore, be proper to promote this discharge, by giving an *emetic* or the *expectorant tincture*.

Emetics not only cleanse the stomach, which in this disease is generally loaded with viscid phlegm, but they likewise promote perspiration and the other secretions, and ought therefore to be repeated according to the obstinacy of the disease. They should not, however, be strong; gentle vomits frequently repeated are both less dangerous and more beneficial than strong ones. For this purpose a tea-spoonful of the *expectorant tincture* or *emetic powder* may be given to a child a year old, in any kind of tea sweetened, every half hour till it operates as a gentle emetic. It may be repeated whenever a fit of coughing occurs and there is a sense of suffocation; or if there is great debility, or the attack is not very severe, a sufficient quantity may be given to loosen the mucus or phlegm, and to cause the child to breath freely. Give also the *pulmonic syrup*.

Opiates are sometimes necessary to allay the violence of the cough. For this purpose a little of the *syrup of poppy*, according to the age of the patient, may be taken in a cup of hyssop or pennyroyal tea, and repeated occasionally.

Laxatives.—The bowels must be kept freely open by gentle laxatives. A good medicine for this purpose is the *cold-pressed castor oil*, mixed with a little milk, sweetened. A tea-spoonful or two may be given to a child one year old two or three times a day, as there is occasion. For those that are older the dose must be increased and repeated till it has the desired effect. Those who cannot be in this manner induced to take the castor oil, may have it mixed with a little syrup or currant jelly, to disguise the taste, or the common *bilious physic* may be given.

The *feet* must be bathed in warm ley water every night, and draughts applied to the feet and chest.

My friend, Dr. Thomas Cooke, editor of the Philadelphia *Botanic Medical Reformer*, a talented practitioner, thus remarks on the virtues and use of the *black cohosh* or *squaw-root* in *hooping-cough:*

"This article is the best, the most efficacious of all others in hooping-cough. We have used it in a great many cases and in all stages of the disease, and rarely has it failed to produce decidedly beneficial effects, rendering the cough less violent, the expectoration freer, and, in many instances, apparently bringing the disease to an abrupt, yet happy, termination.

The saturated tincture we have found the most convenient form of administering it. For a child of one year old the dose is from fifteen to twenty drops, four or five times a day. For one that is three or four years old, from

half to a tea-spoonful, in a little sweetened water. We prepare the tincture by adding a pint of spirits to two ounces of the pulverized root. It may also be used in decoction."

REGIMEN.

Whatever injures the digestion, obstructs the perspiration, or relaxes the solids, disposes to this disease; consequently its cure must depend upon cleansing and strengthening the stomach, bracing the solids, and at the same time promoting perspiration and the different secretions.

The diet must be light and of easy digestion; for children milk, good bread made into pap or pudding, chicken broth, with other light diet, are proper.

One of the most effectual remedies in the hooping-cough is change of air. This often removes the malady even when the change seems to be from a purer to a less wholesome air. The feet should be frequently bathed in lukewarm water, and a sweating or strengthening plaster kept constantly between the shoulders.

CHAPTER IX.

CATARRH OR INFLUENZA. (*Tussis Epidemicus.*)

DESCRIPTION.

This is an epidemical disease which occasionally prevails, and sometimes affects nine-tenths of the inhabitants of Europe and America. It is an increased secretion of mucus from the membranes of the nose, mouth, and bronchia, with fever, and attended with sneezing, cough, thirst, lassitude, and want of appetite.

CAUSES.

A species of catarrh, to which the name of influenza has been applied, sometimes makes its appearance; and considering the manner in which the epidemic infection of this disease occasionally spreads, even over whole countries, in the space of a very short time, it is evident that it is conveyed by a current of the atmosphere, and derives its origin from some casual source capable of impregnating the air which we breathe with the specific poison of the malady.

Catarrh and influenza are not accompanied with danger when appearing under a mild form and properly attended to at an early period; but when connected with highly inflammatory symptoms, and these are not counteracted at the commencement by appropriate means, or there is a predisposition in the constitution to consumption, or a tendency to asthma, unfavourable consequences may result therefrom.

SYMPTOMS.

It commences by sneezing, coughing, hawking, chills succeeded by heat, hoarseness, soreness and rawness of the throat, lungs, and stomach. There is an expectoration of mucus, pain of the head, chest, back, shoulders, and

forehead. The eyes are red, and there is great weakness and debility. The cough is often attended with great difficulty of expectoration.

As before intimated, it seldom proves fatal, but in some epidemics the attack has been so universal as to occasion great mortality. Toward the close of the year 1831, and commencement of 1832, it prevailed throughout the United States, and proved very mortal upon those principally who were aged or were subject to some other complaint. It swept off many of our most distinguished inhabitants.

TREATMENT.

In general the vapour bath alone will soon remove it. It may be repeated every other day; at the same time the feet must be bathed, and warm teas drank, made of *boneset*, *hoarhound*, or other herbs, until perspiration is promoted.

A tea-spoonful of the tincture of *lobelia* or *syrup of ipecac* may be taken every morning; and if the cough proves troublesome, a tea-spoonful of the syrup of *white poppy* may be given. A purgative likewise may be occasionally taken; also bathe the feet.

Influenza and Cough.—Equal parts of good *vinegar* and *water;* to a tea-spoonful of this mixture add as much *capsicum;* sweeten with honey or sugar. A tea spoonful will allay the cough instantly; a dose taken at bed-time will generally enable the patient to rest well all night. It may be taken whenever the cough is troublesome.—John Shaw.

REGIMEN.

The diet should be light, and taken in moderate quantities; liquids are preferable. This treatment will be found very effectual in the catarrh and influenza.

CHAPTER X.

COLDS AND COUGHS. (*Tussis.*)

DESCRIPTION.

The inhabitants of every climate are liable to take cold when the seasons are variable, and there are sudden and considerable changes in the surrounding atmosphere. Those are chiefly the subjects of it who are of a delicate constitution, whose employments expose them to quick transitions from great heat to a very reduced temperature, and who have a morbid susceptibility to the impression of cold, and are disposed to coughs.

Most persons affect to despise colds; and as long as they can walk about, seem to be confined by what they call a *common cold.* Hence it is that colds destroy such numbers of mankind. Like an enemy despised, they gather strength from delay, till at length they become incurable.

CAUSES.

The application of cold to the body giving a check to perspiration, is the general cause of these complaints.

SYMPTOMS.

A cold is usually accompanied with a weight and pain in the head, oppression at the chest, and some difficulty of breathing; a sense of fulness and stopping of the nose, watery inflamed eyes, soreness of the throat, cough, pains about the chest, cold shiverings, succeeded by transient flushes of heat, pains in the neck and other parts of the body, an increased secretion of mucus from the nose, throat, and lungs, in consequence of a slight inflammation of the mucous membrane of these parts, and in many instances with some degree of fever.

Common Cough.—A cough is generally the effect of a cold which has been improperly treated or entirely neglected. When it proves obstinate, there is always reason to fear the consequences, as this shows a weak state of the lungs, and is often the forerunner of consumption.

TREATMENT.

1. Bathe the feet in blood-warm ley water.
2. If very severe, use the *vapour bath* as directed under that head.
3. Take an infusion or tea of common *hoarhound* and *boneset*, sweetened with honey.
4. Give a dose of physic.
5. If the cough is troublesome, particularly at night, give *syrup of poppies.*

Should the cough return after using the above means, an *emetic* may be taken, and afterward the *cough drops:* thirty drops three or four times a day to be given on loaf sugar or in sweetened water. This treatment will be found very effectual for colds or coughs, and which, if properly applied, will prevent the consumption. Also a mixture of honey, vinegar, and butter melted, and a tea-spoonful taken often. The pulmonic syrup or balsam may be taken, if it be obstinate. Take half a wine glass morning, noon, and particularly at night on retiring to rest. This has cured many apparently in the consumption. *Slippery elm bark*, *flax-seed*, *bran*, all make a good mucilaginous tea, separately or together, and promote expectoration. A little lemon juice may be added, and sweetened with loaf or other sugar

REGIMEN.

When a person finds himself much indisposed from any exposure to cold, he ought immediately to put himself on a light, spare diet, abstaining from the usual quantity of food, and from all fermented and spirituous liquors, together with everything that is likely to heat and inflame the body. The best food for him will be gruel, weak broths, bread puddings, roasted apples, barley water, &c. The patient in particular should avoid eating any supper, except gruel, with a little bread. It will likewise be advisable that he be confined to the house, and not expose himself to the external atmosphere; he should also be warmly clothed.

Previous to his going to bed he had better put his feet into warm water and ley for ten or twelve minutes; and, after having them well wiped, he should take freely of *hoarhound*, and, as a change, *boneset* tea, very warm at bed-time, and cold through the day; and covering himself in bed with sufficient clothes, so as to excite a proper perspiration throughout the night The next morning he ought to continue in bed longer than usual.

PREVENTION.

Persons liable to coughs from any little exposure to cold, should wear flannel next to the skin, but particularly over the chest; they should adapt their clothing to the vicissitudes of the weather, and be cautious how they expose themselves too quickly to the external air when heated by exercise or crowded rooms. Bathing the surface with cold water or taking the shower bath daily are excellent preventives.

CHAPTER XI.

ASTHMA. (*Asthma.*)

DESCRIPTION.

Asthma is an affection of the lungs or the bronchial vessels, generally of a spasmodic nature, that occurs in paroxysms which take place usually at night. It is characterized by frequent, difficult, and short respiration, wheezing, stricture of the chest, and a cough; all which symptoms are aggravated when in a recumbent position. It more generally attacks those of a full or plethoric habit.

When there is a great discharge of mucus from the lungs it is termed *humid;* but when it is attended by little or no expectoration, it is termed the *dry* or spasmodic asthma. It more generally attacks men than women.

CAUSES.

Asthma, but more particularly the spasmodic, is brought on by almost everything which increases the action of the heart, and which stimulates and fills the vessels of the mucous membrane. Thus it is produced by intense heat, lightness of air, severe exercise, strong mental emotions, full meals, stimulating drinks, exposure to cold and atmospherical influence, and by certain effluvia, as those of hay, whether new or old, of sealing-wax, and other burning substances.

Congestions of blood, or of serous humours in the lungs, noxious vapours arising from a decomposition of lead or arsenic, impure and smoky air, cold and foggy atmosphere, sudden changes of temperature, scrofulous, rheumatic, gouty, and scorbutic taints; dyspepsia, or irritation in some of the organs, suppression of long-accustomed evacuations, frequent catarrhal attacks, gout, general debility, water in the chest, aneurisms, polypi, or concretions of grumous blood in the large vessels, are the causes from which this formidable disease may arise in different individuals. In some instances it proceeds from an hereditary predisposition, and in others from mal-conformation of the chest.

Asthma having once taken place, its fits are apt to return periodically, and more especially when excited by certain causes, such as a sudden change from cold to warm weather, or from a heavier to a lighter atmosphere; severe exercise of any kind which quickens the circulation of the blood; an increased bulk of the stomach, either from too full a meal or from a collection of air in it; exposure to cold, obstructing the perspiration, and thereby favouring an accumulation of blood in the lungs; violent passions

of the mind; disagreeable odours; and by irritations of smoke, dust, and other subtle particles floating in the air.

The bronchial vessels seem very much concerned in the production of this disease. It is the large quantity of mucus secreted and collected in them which appears to be the proximate cause of the suffocation and difficulty of breathing which attends the complaint, by preventing the free admission of air into the lungs.

SYMPTOMS.

There is often some degree of warning given of the approach of an asthmatic paroxysm, not by pulmonary symptoms, but by those of indigestion, heartburn, wind, itching of the skin, pain over the eyes, and sleepiness. The attack most commonly occurs at night, and the patient is perhaps awakened out of his sleep by it. To those who experience or witness a paroxysm of asthma for the first time, it appears one of the most formidable diseases to which man is liable. The patient is oppressed by a tightness across the breast, which so impedes respiration as to threaten the immediate extinction of life. He starts up into an erect posture, and flies to the window for air. For a considerable time his breathing is performed by gasps, slowly and with a wheezing noise; speaking is difficult, and even painful to him; there is often present also a propensity to coughing.

In this state of urgent distress the patient continues till the approach of morning, when a remission commonly takes place. However suddenly the fit began, it always goes off slowly. By degrees the breathing becomes less laborious, and coughing and speaking are performed with greater ease. In the generality of cases a copious expectoration of mucus at length takes place, and with it the paroxysm ceases, and the patient falls asleep. During the fit the pulse usually continues of the natural standard, the surface of the body is pale, the muscles appear shrunk, and there is a considerable flow of limpid urine. In a few cases expectoration is very scanty.

During the next day the asthmatic experiences some remaining sense of stricture across the breast, and any exertion of the body increases his uneasiness. At night the urgent difficulty of breathing returns, and in this manner he is harassed for three or four successive days; after which, the symptoms gradually yielding, he enjoys his usual rest without farther disturbance This terminates the paroxysm of asthma.

When it has once taken place, the disease is apt to recur periodically; and when the asthmatic disposition is very strong, to be brought on at all times by some of the circumstances enumerated. A degree of difficulty of breathing, particularly on ascending a hill or flight of steps, is never wanting during the intervals, and respiration is always attended more or less with *wheezing*; that is, with a morbid accumulation of mucus in the bronchial tubes. Persons subject to asthma acquire a peculiar expression of countenance, easily recognised when once observed.

TREATMENT.

During a paroxysm or fit of the asthma the patient must be placed in an erect position, and his feet immediately immersed in warm *ley water*, and *sinapisms* applied, with a view to equalize the circulation, or to divert the blood or humours from the lungs and bronchial vessels. An infusion of *catnip* or *pennyroyal* may be given at the same time, to excite gentle perspira-

tion, which course will soon afford relief. Should the paroxysm, however, be very severe, attended with a sense of suffocation, &c., administer immediately, in a cup of warm tea, an ordinary sized table-spoonful of the *tincture of lobelia*, to be repeated every half hour if the first portion does not afford relief.

This medicine exerts the most astonishing effects in this complaint. It is no sooner introduced into the stomach than the tension and spasm is removed, by dislodging collections of mucus in the bronchial vessels, and thereby giving free admissions of air into the lungs; and it is invariably attended with a salutary effect. I have been called when patients have been pronounced past recovery, when they have been apparently dying, and upon the exhibition of this plant an immediate amendment has taken place. I recollect one case where a young woman appeared to be nearly gone with the disease, after having been attended by another physician, who had administered antimony without any benefit. I gave only an infusion of the plant as it was gathered, not having been pulverized. I commenced with table-spoonful doses; the first afforded relief, and, after repeating it a few times, the paroxysm subsided and she soon recovered. The other physician afterward called in, and, upon being shown the simple article I made use of, he cried out, with indignation, "O! it is nothing but the Indian tobacco," a name given it by some.

Another case now occurs to me, where two or three physicians had been attending a boy who was nearly suffocated with the asthma, croup, or a similar disease, and he was pronounced hopeless. They called frequently, and asked "if he was not yet dead." In this condition I was called to visit him; but so near his end did he appear to be, that I thought it entirely useless to prescribe for him; but, as an experiment, I directed some of the *tincture of lobelia* to be given, which was done after my departure; having no hopes of his recovery, I did not again call to see him, supposing that he could not survive but a few hours. Six months after this a person who was acquainted with the family, asked me if I had ever heard of the fate of the boy for whom I had prescribed. I told him I had not, but I supposed that he was dead. He informed me that he was alive and well; that the medicine I left was given, and that it almost immediately caused him to breathe easier, mitigated the symptoms, and in a short time cured him.

Hundreds of cases might be mentioned of a similar nature.

The virtues of lobelia are extraordinary in asthma, croup, &c.; much discretion and judgment, however, is necessary in the administration of it.

Having suspended the paroxysm, the next step will be to effect a radical cure; and this is seldom done, for the reason that asthmatic patients generally discontinue the medicines when they become comfortable. But when the patient wishes a cure effected, he must persevere in the use of proper means. It will be necessary for him to repeat the dose of the tincture or powder of *lobelia* once or twice a week, in doses sufficient to excite general vomiting. He must also occasionally take a *purgative*.

During the intermissions, and when the patient is afflicted only with cough, difficulty of breathing, &c., the following medicine may be taken: Take liverwort, (*hepatica triloba*,) a quarter of a pound; Solomon's seal, (*conv. multiflora*,) a quarter of a pound; skunk cabbage, (*icterodes foetida*,) a quarter of a pound; water hoarhound, (*lycopus virginiana*,) a quarter of a pound; blood-root, (*sanguinaria canadensis*,) two ounces: bruise, and add a sufficient quantity of water. Boil until the strength is extracted, strain, and continue to boil until there is four quarts of the liquid; then add five pounds of honey and half a pint of brandy; let it settle, and it is fit for use

Of this let a wine glass be taken three or four times a day. During the time that this is taken, give an infusion of *hoarhound*, warm at night and cold through the day. It will be necessary to keep a determination to the surface, by giving diaphoretic medicines. A strengthening plaster may be worn upon the breast and between the shoulders, to divert the humours from the lungs. When there is difficulty of breathing from an accumulation of mucus, give the *expectorant tincture.*

A lady of this city, who has been for many years afflicted with the asthma, (apparently spasmodic,) and had tried almost every kind of medicine, could find no relief from any except the following: Take æther, tincture of castor, tincture of opium, (*laudanum,*) equal parts: mix. A tea-spoonful to be taken whenever the symptoms are urgent. A plaster may be applied to the chest and between the shoulders.

The following may be taken: Vinegar, one pint; beat well three eggs, including the shells, and add; let all stand till dissolved: then add one pound of loaf sugar, or one pint of molasses. Give half a wine glass occasionally. Also *seneca snake-root*, one ounce; water, two pints; boil to one pint, strain; add a quarter of an ounce of spirits of *hartshorn; vinegar of squills*, three drachms: mix. Dose, three or four table-spoonsful three times a day in herb tea. Dr. Bree extols the latter in habitual asthma. If the paroxysms or cough are severe after the preceding treatment, the *cough powders* may be taken in a little honey or molasses.

A person afflicted with this complaint, states that one of our stimulating or *strengthening plasters* between the shoulders, and our *rheumatic liquid* on the chest, removed the spasms connected with the asthma, and afforded him great benefit. I also prescribed the expectorant tincture. Smoking the *stramonium* or stink-weed leaves twice a day is very beneficial.

A friend of mine, Mr. Millett, has been severely afflicted with this complaint for many years. About a year ago he was attacked with it so severely, that he was a number of times nearly suffocated. His sufferings were awful. Several physicians considered his case hopeless. I gave my opinion, however, that he would recover, which has proved to be the case.

Asthmatic Tincture.—Lobelia, one handful; skunk cabbage root, double handful; bark of root of bittersweet, double handful; stramonium leaves, about one ounce by weight; slippery elm bark, a handful; Solomon's seal, and Comfrey, of each about one ounce; the whole covered with spirits, and digested four days. Dose, from a tea-spoonful to a table-spoonful, three times a day. An infusion of the above may be made, should the spirits prove too stimulating.—Dr. Vere.

REGIMEN.

The patient by all means should breathe a pure air. He must avoid smoke, dust, &c. He ought to lay upon a straw mattress, with his head elevated. A spare diet to be used; vegetables, milk, &c.

CHAPTER XII.

INFLAMMATION OF THE LUNGS. (*Pneumonia.*)

DESCRIPTION.

When the mucous membrane lining the lungs, or the substance of the lungs, are inflamed, it is termed *pneumonia* or an inflammation of the lungs. When any part of the contents of the thorax is inflamed, it is termed by some pneumonia; by some peripneumony. This disease attacks all classes, and is extremely prevalent.

CAUSES.

The most general cause of this disease is the application of cold to the body, which gives a check to the perspiration, and determines a great flow of blood to the lungs. It attacks principally those of a robust constitution and plethoric habit, and occurs most frequently in the winter season and spring of the year; but it may arise in either of the other seasons, when there are sudden vicissitudes from heat to cold.

Other causes, such as violent exertions in singing, speaking, or playing on wind instruments, by producing an increased action of the lungs, have been known to occasion inflammation of this organ. Those who have laboured under a former attack of this complaint are much predisposed to returns of it.

SYMPTOMS.

Inflammation of the lungs comes on with an obtuse pain in the chest or side, great difficulty of breathing, (particularly in a recumbent position, or when lying on the side affected,) together with a cough, dryness of the skin, heat, anxiety, and thirst. At the first commencement of the disease the pulse is usually full, strong, hard, and frequent; but in a more advanced stage it is commonly weak, soft, and often irregular. In the beginning the cough is frequently dry and without expectoration; but in some cases it is moist even from the first, and the matter spit up is various both in colour and in consistence, and is often streaked with blood.

If relief is not afforded in time, and the inflammation proceeds with such violence as to produce suffocation, the vessels of the neck will become turgid and swollen; the face will alter to a purple colour; an effusion of blood will take place into the cellular substance of the lungs, so as to impede the circulation through that organ, and the patient will soon be deprived of life.

If these violent symptoms do not arise, and the proper means of subduing the inflammation have either been neglected or have proved ineffectual, although adopted at an early period of the disease, a suppuration may ensue, which event is to be known by frequent slight shiverings, and an abatement of the pain and sense of fulness in the part, and by the patient being able to lie on the side which was affected, without experiencing great uneasiness.

When pneumonia proves fatal, it is generally by an effusion of blood taking place in the cellular texture of the lungs, so as to occasion suffocation, which usually happens between the third and seventh days; but it may likewise prove fatal, by terminating either in suppuration or gangrene.

When it goes off by resolution, some very evident evacuation always attends it; such as a great flow of urine, with a copious sediment, diarrhœa, a sweat diffused over the whole body, or a hæmorrhage from the nose; but the evacuation which most frequently terminates the complaint, and which does it with the greatest effect, is a free and copious expectoration of thick white or yellow matter, slightly streaked with blood; and by this the disease is carried off generally in the course of ten or twelve days.

TREATMENT.

Indications of Cure.—The most prompt means should be used to reduce the inflammation and remove the disease, by resolution or by preventing suppuration.

In consequence of the vicissitudes of our atmosphere, this disease (inflammation of the lungs) is the greatest scourge of this country. It proves more fatal than the yellow fever, or any other epidemic—if not immediately, by its subsequent effects upon the system.

It is the practice universally among physicians to bleed in this as well as other inflammatory diseases; but I have *invariably* succeeded in treating the worst species of the complaint without ever having drawn one drop of the vital fluid; notwithstanding it is asserted by authors that the most dangerous consequences result from the neglect of bleeding. I know by experience that the disease is cured much sooner, and without endangering the life or health of the patient. The lives of thousands have been destroyed by the use of the lancet in this and other diseases.

Lieutaud, a celebrated doctor and physician to Louis XV., deprecates the practice of free bleeding in this disease. He says, "that bleeding must be confined within certain limits, lest the strength necessary to promote expectoration or any other effort of nature, should fail from too great depletion of the vessels. Every one knows that bleeding, even the smallest, is fatal in some malignant epidemics. To this we may add, that, by common consent, bleeding hinders suppuration, which nature usually points to about the third or fourth day of the disease.

It is not to be denied that many, not of inferior note, have followed a contrary method; who have, for instance, in every obvious inflammation of the breast, ordered bleeding ten or fifteen times, or even more. The young and athletic may bear this *astonishing loss of blood* with success; but I have seen many afterward relapse into phthisis or dropsy, after overcoming the inflammatory disease; to say nothing of many whose strength had been prostrated by this immoderate depletion of the vessels, whereby they became unequal to the promoting of expectoration, and were carried off by suffocation or gangrene."

In this, as well as other diseases, it will be necessary, in the incipient or first stage of inflammation of the lungs, to produce free and copious perspiration, by administering *sudorific medicines;* and a very excellent method to answer this purpose is, to steam the patient over *bitter herbs*, as mentioned in other parts of this work, or by making use of the vapour bath. This may be resorted to if the strength of the patient will enable him to sit up; otherwise the *sudorific* or *sweating drops* may be given in the usual manner, until the patient perspires freely for several hours, and this must be continued moderately until the inflammation has subsided. This single operation will divert the blood from the lungs and prevent congestion, lessen the febrile excitement by equalizing the circulation, remove the pain, and favour ex-

pectoration. When the patient has recovered from the operation of free perspiration, *a purgative* may be given, and occasionally repeated during the disease. When the arterial action has diminished, mild *emetics* may be administered; they generally produce immediate relief from the oppression of the chest, cause a determination to the skin as well as a free expectoration. They expel the viscid mucus which fills the air cells of the lungs, restore respiration, and thereby increase the strength of the system. These may be repeated as often as the circumstances of the case justify. The *emetic powder* is the best medicine that can be administered.

It will be found very serviceable to inhale the steam of bitter herbs: the tension of the lungs is thus removed, and mucus expectorated with more freedom; and these may be repeated frequently through the day. When the arterial excitement has diminished, should the cough prove troublesome, one or two tea-spoonsful of the *syrup of poppy* or *paregoric* may be given. If these should not allay the cough sufficiently, give ten grains of *diaphoretic powders* at bed-time, until rest or sleep is procured; to be repeated every night, if necessary.

Expectorants.—If there is much accumulation of mucus, oppression at the chest, cough, &c., difficulty of breathing and expectoration, give the *expectorant tincture*, or *syrup of ipecac.*

These preparations have the effect of lessening all the symptoms of the complaint. They are expectorant, diaphoretic, &c.

Mustard Plasters.—When the inflammation is very acute and the symptoms violent, a *mustard plaster* may be applied on the chest, till the skin becomes reddened; and when the inflammation has in some degree subsided, should the cough continue, use the *cough powders*. An infusion of *hoarhound* and *boneset* may be used through the day, sweetened with honey.

I once attended a case of inflammation of the lungs, in which the paroxysms of coughing were so severe and protracted that I was baffled with all my usual means. The *cough powders* gave immediate *relief*, and, with other appropriate treatment, the patient recovered. I have ever since used the same invariably with success. A distinguished physician of this city, having heard of its effect, applied to me for the preparation.

The patient may drink an infusion of *flax-seed*, *bran*, and *slippery elm.* These, by their demulcent properties, will be found singularly beneficial. Lemon juice may be added, and it may be sweetened.

It will be particularly necessary, in the acute stage of this disease, to avoid the use of pectorals, syrup, and such medicines as possess bracing or tonic properties, except in conjunction with depletive means.

The inflammation must be in some degree first subdued, before these can be administered with a good effect.

The feet must be daily immersed in warm *ley water*, fifteen or twenty minutes at a time; and, when removed, wiped dry, and *sinapisms* applied at night.

Should the pulse continue full, tense, and hard after the patient has submitted to this treatment, or should not the inflammation gradually subside, then give the *tincture of fox glove*, (*digitalis;*) fifteen or twenty drops may be given morning, noon, evening, and at bed-time, in any kind of tea.

This plant increases the discharge of urine, and thereby lessens inflammation. It lessens the circulation through the lungs, by diminishing the action of the heart and arteries, and is thus attended with a very favourable effect

"I am of opinion," says a practical physician, "that the digitalis may in all cases of active inflammation be most advantageously employed, and that much of the pabulum vitæ can by its aid be preserved. I have had lately

under my care a man who, from a violent cold, was seized with pneumonia; he was old, greatly enervated, and had typhoid symptoms combined with it; he took, without any inconvenience, in twenty-four hours, six grains of this powerful sedative on the third day, which reduced his pulse to seventy-five, and cured the inflammation."

A purgative must be administered every day or two, according to the obstinacy or violence of the disease. It has a tendency to lessen inflammation.

Pectorals.—Should the cough continue obstinate, or should it remain troublesome after the other symptoms have subsided, give the *pulmonary syrup* or *balsam*. In very severe cases I have applied a *blister* to the chest.

Inflammation of the Lungs.—Dr. J. Rodgers, who has practised sixteen years in this city, informs me that he formerly, when called to a patient labouring under inflammation of the lungs, immediately bled him and gave mercury freely. "But now," said he, "I only give *syrup of ipecac* and *bathe the chest* externally, and the patient soon recovers."

He states that he orders molasses to be boiled half away, and to a table-spoonful of this add a table-spoonful of the above syrup. Of this mixture a tea-spoonful is to be taken often or occasionally. The patient soon recovers under this treatment.

I have recently been attending a patient with inflammation of the lungs so severe that I was fearful he would not recover. I gave occasionally an *emetic* and a *mandrake* purgative, with our *pulmonic syrup*, under which he gradually grew better, until he entirely recovered.

The *syrup of blood-root* is also a very good medicine in this and all other bronchial affections: and likewise the *balm of Gilead*.

REGIMEN.

The diet should be diluting, light, cooling, and nutritious. No kind is more cooling, while at the same time it is nourishing, than Indian meal gruel. It is food, drink, and medicine in this disease, and in almost every other.

This course of treatment has proved an effectual and sovereign remedy in the worst form and stage of pneumonia or inflammation of the lungs, when the course now pursued by physicians sends the patient into the grave in a few days, or throws him into the consumption. None can realize the difference in the two kinds of practice, except they witness it.

CHAPTER XIII.

PNEUMONIA TYPHOIDES.

DESCRIPTION.

This disease is termed by some peripneumonia notha, pneumonia typhoides, bilious pneumonia, and malignant pleurisy. In the southern states it is vulgarly called "cold plague or cold skin fever," in consequence of the remarkable coldness of the surface and extremities, and its great mortality in some places and seasons. It is termed *bilious* inflammation of the lungs, in consequence of the liver being affected in the disease. In the eastern states it is called "pneumonia typhoides," in consequence of its being a mixed

disease; in other words, the true peripneumony, or inflammation of the lungs, degenerating into typhus.

The disease has, in general, commenced with acute pain in the side or breast, stricture across the thorax, and difficulty of breathing; short, distressing cough, sometimes attended with a mucous expectoration, tinged with blood; numbness in the muscles, excruciating pains in the limbs and about the region of the heart, chills, and great prostration of strength, together with palpitation, irregularity, depression, and annihilation of the pulse, syncope, and cold sweats; but in some cases the pulse is very rapid, and not depressed. In some instances the patient is seized with a violent pain in the head, soon becomes delirious, and dies in a few hours.—(See Spotted or Petechial Fever.)

CAUSES.

Supposed to be epidemic, or produced by the various vicissitudes of climate. It prevails in the cold weather of winter and spring. Resembles very much in its character the spotted fever, by the violence and suddenness of its attack, the variety of its forms, sudden and great prostration of strength, its rapid progress, and fatal termination. The peripneumony notha was described by Sydenham, in 1680, under the name of *bastard peripneumony*, which, he says, arises every year toward the beginning, but more frequently toward the close, of winter. It chiefly attacks such as are of a gross habit of body and middle-aged persons, but oftener those who are more advanced in years and "too much addicted to spirituous liquors, especially brandy"

TREATMENT.

In the first or inflammatory stage of the disease the means made use of should be to subdue the inflammation, the same as in inflammation of the lungs; and the treatment in the latter stages similar to that for typhus fever

A physician states that the following formula has proved efficacious as a mild diaphoretic in this disease: Take salt of harshorn, (*carbonas ammoniae*,) camphor, (*gum camphora*,) equal parts; divide into doses of eight grains each: give one every two, three, or four hours, according to symptoms. If there is great pain, restlessness, or delirium, combine ten drops of laudanum with each powder, until quietude is procured.

In one case of this disease the above prescription had a very salutary effect, and the patient soon recovered.

It should be borne in mind that the loss of even a few ounces of blood in this disease is attended with fatal consequences.* If the pulse continues too frequent, give fifteen drops of the *tincture of digitalis* three times a day. The feet should be daily bathed in tepid ley water, and *mustard sinapisms* applied. If this disease, in its incipient or acute stage, was judiciously treated, in all probability it would seldom or never run into the typhoid state. It is the mal-practice of physicians which causes the true pneumonia to degenerate into the real typhoid state.

REGIMEN.—I am confident that bathing the surface with cold water daily, or the shower bath, with friction and temperance, would be a complete antidote against all pulmonary diseases.

* Dr. Drake, of Peekskill, N. Y., informs me that this disease was very prevalent in that section of the country a few years since, and proved very mortal. Bleeding was found exceedingly injurious. He states that a Dr. White bled twelve persons labouring under this complaint, and eleven of them died.

CHAPTER XIV.

CONSUMPTION. (*Phthisis Pulmonalis.*)

DESCRIPTION.

Pulmonary consumption (*phthisis pulmonalis*) is characterized by emaciation, debility, cough, hectic fever, and purulent expectoration. Some authors enumerate thirty different species of this complaint, but this distinction seems unnecessary for practical purposes.

CAUSES.

The causes which produce this afflicting and extensive malady, which may emphatically be called consumption, are very numerous. The following are the most general:

Hereditary disposition, particular formation of the body, obvious by a long neck, prominent shoulders, and narrow chest; scrofula, or state of the system indicated by a fine clear skin, fair hair, delicate rosy complexion, large veins, thick upper lip, a weak voice, and great sensibility; certain diseases, such as venereal, scrofula, the small-pox, and measles; particular employments, exposing artificers to dust, such as needle-pointers, stone-cutters, millers, &c., or to the fumes of metals or minerals under a confined and unwholesome air; violent passions, exertions, or affections of the mind, as grief, disappointment, anxiety, or close application to study, without using proper exercise; frequent and excessive debaucheries, late watching, and drinking freely of strong liquors; great evacuations, as diarrhœa, diabetes, excessive venery, fluor albus, immoderate discharge of the menstrual flux, and the continuing to suckle too long under a debilitated state; and, lastly, the application of cold, either by too sudden a change of apparel, keeping on wet clothes, lying in damp beds, or exposing the body too suddenly to cool air when heated by exercise; in short, by anything that gives a considerable check to the perspiration. The more immediate or occasional causes are, bleeding of the lungs, pneumonic inflammation proceeding to suppuration, catarrh, asthma, and tubercles, the last of which is by far the most general.

Intemperance in living and folly of dress contribute to cause this disease. Thin dress, tight lacing till a female can hardly stoop or breathe: one minute in a heated ball-room or crowd, in perspiration—the next in extreme cold air: a cough follows, and next the *hasty consumption*.

Another cause of this malady is, the confined and sedentary habits of males and females in cellars, factories, &c. The air inhaled is impure, and the chest contracted by the employment of corsets; the stomach, lungs, or liver soon become disordered. Another cause of consumption is, the manner in which persons are treated by physicians; if they are attacked with cold or cough, a pain in the chest or side, the doctor comes and bleeds freely, then gives mercury and salts, till they are salivated or injured. Says Dr. E. Smith; "I do not believe there is a well man on earth who could go through all this treatment without being confined to his bed."

History and Prevalence of the Disease.—This disease has prevailed extensively from the earliest period of history to the present time, and has swept more from the earth than the sword or famine. In all northern climates it

commits the most terrible ravages. A writer some years since computed that, out of a population of eleven millions in the Island of Great Britain, fifty-five thousand annually died of consumption, and the same fatality attends the disease in this climate. I presume one-third of those who die in this country are taken off by *pneumonic diseases* or affections of the lungs; all which show not only the prevalence and fatality of the complaint, but likewise the inefficacy of the various methods of treatment, including the vast number of the boasted nostrums of the day with which the community are now so shamefully deceived and imposed upon. That the reader may have an opportunity of seeing the mortality of consumption in this city, he need only refer to the report of the city inspector.

Curability of the Disease.—It is supposed by most people that consumption is incurable, and nothing is more common than, when an individual is attacked with this disease, to consign him to the grave. But we should not be too hasty in arriving at such a conclusion. We have many well-authenticated instances on record where consumption has been cured, either spontaneously or by proper remedial agents. An author in Europe enumerates thirty or forty cases restored to health. I have myself attended a considerable number of persons who, having every symptom of the disease in its confirmed stages, were cured, are now well, and enjoying good health. I recollect one person reduced so low that I refused to prescribe for him, under the supposition that medicine would avail nothing; some months after the same man accosted me in the street, and stated that after I saw him he took a syrup made of the very ingredients which enter into the preparation which I am now in the habit of prescribing, under the use of which he completely recovered. Indeed it is beyond dispute, that the lungs recover from disease the same as any other organ, though less frequently, provided the powers of nature are sufficient to bring about a healthy action; all which show the propriety of pursuing a rational and judicious course of treatment; besides, it is our duty to alleviate disease when we cannot cure, and which can always be done, even in the worst stages of this formidable malady. The fact, that cicatrices or scars have been discovered in the lungs of persons on post mortem examination, who had been cured of consumption, and who subsequently died of some other complaint, proves beyond dispute that the disease is curable.

SYMPTOMS.

This disease may arise from inflammation of the mucous or lining membranes, or external parts of the lungs; and also from tubercles.

The incipient symptoms usually vary with the cause of the disease; but when it arises from tubercles,* it is usually thus marked: It begins with a short dry cough that at length becomes habitual, but from which nothing

* Tubercles are small, hard, round knots or tumours situated in different parts of the lungs, (generally at the upper part) and their number varies much. In their incipient stage they are no larger than a pea shot, but finally increase and become as large as a nut. They often exist in clusters, and, if numerous, run into each other, and form hard yellow masses like cartilage. At length, from cold or other causes, they soften, and are changed into a cream-colour, matter, break, and open into the bronchial tubes, and are discharged by expectoration. They form open ulcers, from which great quantities of matter issue, and sometimes blood; they depend upon a strumous or scrofulous state of the system. Tubercles will sometimes exist for many years, even to old age, without very serious inconvenience. By regularity, temperance, diet, &c., they may be prevented from doing much injury; otherwise they soon cause consumption.

is spit up for some time, except a frothy mucus. The breathing is at the same time somewhat impeded, and upon the least bodily motion is much hurried; a sense of straitness, with oppression at the chest, is experienced; the body becomes gradually leaner, and great languor, with indolence, dejection of spirits, and loss of appetite prevail. In this state the patient frequently continues a considerable length of time, during which he is, however, more readily affected than usual by slight colds; and upon one or other of these occasions the cough becomes more troublesome and severe, particularly by night, and it is at length attended with an expectoration, which toward morning is more free and copious. By degrees the matter which is expectorated becomes more viscid and opaque, and now assumes a greenish colour and purulent appearance, being on many occasions streaked with blood. In some cases a more severe degree of bleeding at the lungs attends, and the patient spits up a considerable quantity of florid, frothy blood. The breathing at length becomes more difficult, and the emaciation and weakness increased. With these the person begins to be sensible of pain in some part of the chest, which, however, is usually felt at first under the sternum, particularly on coughing. At a more advanced period of the disease a pain is sometimes felt on one side, and at times prevails in so high a degree as to prevent the person from lying easily on that side; but it more frequently happens that it is felt only on making a full inspiration or coughing. Even where no pain is felt, it often happens that those who labour under consumption cannot lie easily on one or other of their sides, without a fit of coughing being excited or the difficulty of breathing being much increased.

At the first commencement of the disease the pulse is often natural, or perhaps is soft, small, and a little quicker than usual; but when the symptoms which have been enumerated have subsisted for any length of time, it then becomes full, hard, and frequent. At the same time the face flushes, particularly after eating; the palms of the hands and soles of the feet are affected with burning heat; the respiration is difficult and laborious; at evening there is an increase of symptoms, and by degrees the fever assumes the hectic form. This species of fever is evidently of the remittent kind, and is increased twice every day. The first augmentation occurs usually about noon, and a slight remission ensues about five in the afternoon. This last is, however, soon succeeded by another accession, which increases gradually until after midnight; but about two o'clock in the morning a remission takes place, and this becomes more apparent as the morning advances. During the exacerbations the patient is very sensible to any coolness of the air, and often complains of a sense of cold, when his skin is, at the same time, preternaturally warm. Of these exacerbations, that of the evening is by far the most considerable. From the first appearance of the hectic symptoms the urine is high coloured, and deposites a copious branny red sediment. The appetite, however, is not greatly impaired, the tongue appears clean, the mouth is usually moist, and the thirst is inconsiderable. As the disease advances, the mouth and fauces put on rather an inflamed appearance, and are beset with apthæ or canker, and there is a blue or pearly whiteness of the eye. During the exacerbations a florid circumscribed redness appears on each cheek; but at other times the face is pale and the countenance somewhat dejected. At the commencement of hectic fever the bowels are usually costive; but in the more advanced stages of it a diarrhœa often comes on, and this continues to recur frequently during the remainder of the disease; colliquative sweats likewise break out, and these alternate with each other, and induce great debility. In the last stage of the disease the emaciation

is so great that the patient has the appearance of a walking skeleton; his countenance is altered, his cheeks are prominent, his eyes look hollow and languid, his hair falls off, his nails are of a livid colour and much incurvated, and his feet are affected with œdematous or dropsical swellings. To the end of the disease the senses remain entire, and the mind is confident and full of hope. It is, indeed a peculiar symptom attendant on consumption, that those who labour under it are seldom apprehensive or aware of danger; and it is no uncommon occurrence to meet with persons, labouring under its most advanced stage, flattering themselves with a speedy recovery, and forming distant projects under that vain hope. Some days before death the extremities become cold. In some cases a delirium precedes that event, and continues until life is extinguished. The throat is generally sore. There is usually looseness and irritation of the bowels, and more or less pain in the chest and side.

"Coughs, purulent expectoration, hectic fever, and wasting do not necessarily constitute true consumption of the lungs. On the contrary, facts have proved that all these symptoms often proceed from various other morbid affections; some of them as untractable as the true consumption, but others affording a much more favourable opinion; and that all of them may be fatal with the usual symptoms of consumption, and yet the substance of the lungs be found entirely free from disease."

TREATMENT.

Indications of Cure.—The indications are,

1. To moderate inflammatory action.
2. To support the strength and promote the healing of ulcers in the lungs.
3. To palliate urgent symptoms.

Debility being one great cause of consumption, those medicines which remove it aid in curing the disease. The lungs, being weak, are unable to resist the invasion of disease; but as soon as their office or functions are restored, they are enabled to overcome the irritation, which is the proximate cause of morbid action. This fact I have ascertained by experience. What consummate folly or ignorance, then, to induce greater debility by bleeding, &c. The process of nature, in removing ulceration or tubercles, appears to be, first, by absorption; second, by expectoration; third, by the excretory vessels of the skin. It is well known that medicine cannot be introduced into the lungs, except by inhalation; it acts through the medium of the blood, and also by sympathy; the sympathetic effect of medicine is strikingly shown by emetics and expectorants.

It is undoubtedly the case that thousands die of this disease in consequence of the mal-practice of physicians. It has become proverbial, that as soon as patients are placed under their charge they begin rapidly to decline. Indeed, this cannot otherwise be, as the medicine they give produces the most debilitating effects, and undermines the constitution much faster than the disease itself. From the structure of the lungs, it is unquestionably a difficult disease to cure; the constant motion of them prevents the healing or restorative process; notwithstanding which, pulmonary consumption may be cured as well as other diseases, by judicious or skilful treatment, especially in the first stages of the disease.

Almost numberless medicines are recommended in this complaint, few of which have much claim upon our attention. The following treatment we have found very generally successful, especially in the incipient stages of the disease; and, when it has failed to cure, has uniformly mitigated the complaint

and rendered the patient more comfortable, and thus prolonged his life, which is one great object of medicine.

Vegetable Emetics.—There is no class of medicines so highly beneficial in this disease as certain kinds of emetics. Mineral agents, such as antimony and vitriol, are dangerous to administer; but vegetables operate very differently. In consequence of their action upon the thoracic organs of the chest by sympathy, they are very valuable in consumption, acting with peculiar force and effect upon the lungs, removing the tough viscid mucus from the air cells, producing absorption by their tonic and corroborant effects, and thus bring about a healthy state of these organs. No preparation will be found to answer a better purpose than the *Emetic Powders.*

This preparation seems to exert a specific effect upon the stomach, lungs, and all the surrounding viscera.

Emetics should be repeated according to the strength of the patient and continuance of the symptoms, particularly in the commencement of the disease. No fear need be apprehended from the shortness of breath and apparent debility that follow their use.

Principal Remedy.—The medicine on which I place the most reliance, and which we prescribe in every stage of the disease, is the *pulmonic syrup* or *balsam.* It is *expectorant*, *tonic or restorative*, *alterative*, *stimulant*, *pectoral*, *demulcent*, &c. Hence it aids expectoration, removes congestion, and strengthens or restores the tone of the whole system, and is calculated to remove the consumptive taint from the fluids, and, by its stimulating properties, removes tubercles from the lungs, by promoting absorption. In administering a medicine combining all these properties, it will be seen that the treatment of consumption is reduced to great simplicity, and from among the numerous medicines which we have tried from time to time, we have found this superior to all others.

This syrup will be found to possess great virtues in pulmonary consumption. It lessens the cough, removes the pain of the breast, and gives strength and energy to the system generally, and has cured many persons who have had every symptom of genuine consumption.

Should this fail of removing the complaint, let the following syrup be given: Take liverwort, (*hepatica triloba*,) one ounce; Solomon's seal, (*convallaria polygonatum*,) two ounces; skunk cabbage, (*symplocarpus fœtida*,) two ounces; blood-root, (*sanguin. canad.*) half an ounce; bugle weed, or water hoarhound, two ounces: add a suitable quantity of rain or soft water, and extract the strength by boiling. Let it be reduced to two quarts, then add two pounds of sugar. Dose, a wine glass three or four times a day, fasting. This will be found very serviceable, particularly when there is bleeding at the lungs.

One female, labouring under the symptoms of pulmonary consumption, recovered under the use of the following medicine. I collected all the ingredients on a farm near this city, and gave them green at the time. *Lobelia*, *hyssop*, *spikenard*, *water hoarhound*, called bugle weed, *elecampane*, *golden rod*; a suitable quantity of water added, and a strong syrup made. Dose, as much as the stomach could bear during the day.

A friend of mine, labouring under all the symptoms of tubercular consumption, was cured by the following treatment: She first took the *pulmonic syrup*; then she drank freely of the following decoction, cold, viz., *wormwood*, *tansy*, and *hoarhound*, half an ounce of each to one quart of boiling water. Steep a short time, and sweeten. Drink as much as the stomach will bear during the day. Exercise was daily taken in the open air, which promoted expectoration and effected a cure. She also took the following:

wood ashes, a table-spoonful; boiling water, one pint. Drank a wine glass occasionally through the day.

Anodynes.—Should the cough be very troublesome and the patient's rest very much disturbed in consequence of it, he may take the *cough powders*.

For night sweats give ten or fifteen drops of *elixir vitriol*, in sweetened water, twice a day.

Diluent and Tonic Drinks.—An infusion of *hoarhound* and *boneset* combined, and sweetened with honey, may be drank through the day, and especially while taking the syrups.

Dr. McNair gives two grains of *ipecac* three times in every twenty-four hours; it reduces the pulse. To prevent irritation, two grains of extract of henbane (*hyoscyamus*) may be taken.

For night sweats, sulphuric acid, nitric acid, of each one drachm; water, two ounces; mix. One tea-spoonful to be taken in one pint of cold sage tea, and drank during the day, soon cures the sweats. Should there be pain in the bowels or a relax, give the *neutralizing mixture*. If this fails, give *charcoal*, pulverized, two parts; magnesia, one part; mix, and give a small table-spoonful daily. It is an excellent remedy. If there is pain in the chest or side, bathe with the *rheumatic liquid*. Apply also the *strengthening plaster*.

A change of Climate or Air.—This has sometimes performed wonders. Persons have gone from a northern to a southern climate, where bilious diseases prevail, and have been perfectly cured when they have been even in the last stages of the consumption. East Florida, New Orleans, the West Indies, the south of France, and Italy possess such peculiar temperature as to suspend or cure the disease: the soothing effect of the air has the power of healing the lungs in a most remarkable manner; and I have the fullest evidence of the benefit arising from this change of climate.

One man, nearly gone with the disease, was recommended to go to a place where he would be likely to take the bilious fever. He did so, and became much reduced with it, and the consequence was, that he was soon cured of the consumption.

A patient of mine, who had been reduced very low with this disease, embarked on board of a ship bound to Brazil, took up her residence there, and in a few weeks after her arrival (she afterward informed me) was free from her cough, and apparently well. It appears that heat or bile is an antidote to pulmonary diseases, from its opposite properties or effects.

I have sometimes thought that the vicissitudes of our northern climate produced or generated an acid of a very irritating nature, which is accompanied by a check of perspiration, and which is counteracted or neutralized by the influence of a southern climate acting specifically upon the liver, causing it to pour out an unusual quantity of bile, which, by its sympathetic action upon the lungs, removes the disease; for we are aware that one organ cannot be sensibly diseased without the other participates with it; or the benefit may be entirely owing to the genial warmth, heat, and uniform temperature of the climate.

Many have been cured by remaining a long time at sea, and constantly breathing a pure air. Would not a three years' voyage to the South Seas or Pacific Ocean remove this complaint?

A respectable person informs me that a lady in Massachusetts, apparently in a hopeless state of consumption, went to Kentucky to spend her few remaining days with her daughter, without any expectation of recovery

But her symptoms soon began to subside, and she entirely recovered her health. A change from the city to the country is often attended with great benefit; and going from an inland residence to the sea-shore is also very efficacious.

Exercise on horseback is proverbially serviceable in all pulmonary affections.

Sea Voyage and Travelling.—"The two remedies," says Combe, "which have the oldest and the most general reputation in the successful treatment of pulmonary and consumptive disease have this quality in common, that both owe much of their influence to their exciting the cutaneous functions and equalizing the circulation. I allude to sailing, and riding on horseback." Sydenham considered the latter almost a specific. Dr. Rush extols it with nearly equal force. Dr. Combe states that he was seized with a pulmonary disease, and went by sea to London, and afterward he sailed up the Mediterranean. During the voyages he was almost constantly sea-sick, which kept up a moisture of the skin. In one month he found a decided improvement in his health. After ten months' illness he nearly recovered. On his return he began to ride on horseback, which kept the skin bedewed with moisture, in proportion to which he gained. He continued this practice, which, with sponging the body, friction, and other means, enabled him to resume his professional duties, and for nine years afterward his health continued good. After that period it gave way, and pulmonary symptoms commenced. The same system was pursued, and the same results again followed; the functions of the skin restored with general health by a sea voyage, horseback exercise, and the regular use of the bath. These, as formerly, have proved beneficial in proportion to their influence in keeping up the warmth and moisture of the surface and extremities.

Says Graham; "The beneficial effects of horseback riding to those labouring under pulmonary consumption, are often truly astonishing. I have known invalids, affected with this disease, when they were too feeble to mount the horse without help, by riding a short distance the first time, and gradually increasing the length of the ride daily, become able, in the course of two weeks, to ride twenty miles without stopping by the way, and far more vigorous at the end of the journey than at the beginning; and I have known instances in which such individuals have made journeys of several hundred miles on horseback, and returned home to their friends almost perfectly restored to health. Indeed I am entirely confident that if strict simplicity and propriety of diet, and riding on horseback to the full extent of the patient's ability, will not cure pulmonary consumption, no earthly means can cure it."

Inhalation.—I have thrown several powders into the lungs by means of an *inhaler;* but no satisfactory result has yet been obtained. The vapour or gas of iodine has been introduced by inhalation, and, it is stated, successfully. An ounce of the iodine, pulverized, may be put into an open-mouthed bottle and placed in warm water, with the head over it, and thus inhaled for a short time, or as long as the patient can bear it, and repeated occasionally through the day.

Ramadge's Tube has been highly recommended by my friend Mr. Howe, of this city, who thinks he has been cured by it. I have seen it tried in other cases without benefit. It deserves a farther trial.

I subjoin the following circumstance, which I recollect many years since to have read, and which may prove interesting and useful:

A lady retired to the country to die, being in the last stage of consumption. One morning while sitting at her chamber-window she observed a dog, almost

wasted to a skeleton, enter the garden very early, went into a bed of *chamomile*, and licked the *dew* from the *flower* of the *plant*. After a number of days she noticed an improvement in the appearance of the consumptive animal. This induced her, as the last alternative, to imitate his example, and every morning in the same manner to sip the dew from the same bed. The effect of which was, an abatement of all her symptoms, followed by a perfect cure of her complaint.

This story may at least inspire confidence enough to induce us to drink freely of this excellent plant, if not literally to imitate the consumptive dog.

Dr. Hopkins informs me that, during his residence in South or North Carolina, a lady was nearly reduced to a skeleton by the consumption. She was abandoned by the physician as incurable, and found no remedy from any source whatever.

In this situation some person advised her to take the following preparation: Take common polypody; liverwort, (*hepatica triloba;*) a decoction to be taken freely through the day.

She took this medicine, and immediately began to grow better; and, after continuing it some time, it effected a radical cure, and she is now well.

A physician informs me that a person in the state of Connecticut was cured of a deep-seated cough, attended with hæmoptysis, or bleeding at the lungs, by taking a syrup of the *polypody* and *black cohosh*.

The following recipe has been sent to me by Dr. T. Seely for insertion in this work. He states that he has been remarkably successful in treating consumption by the use of it: Take water, six ounces; olive oil, two ounces; paregoric, two drachms; spirits of ammonia, (hartshorn,) one drachm; sugar, two ounces: mix. Take a table-spoonful every two hours.

"This medicine," says Dr. Seely, "after proper evacuations and the fluids corrected, will generally produce a vomica or abscess on the lungs, which will discharge the most fetid matter that can be conceived; at which time a gargle of *yeast* and *water* must be used to cleanse the mouth and throat."

The following recipe is taken from a small medical treatise entitled "Dr. John William's Last Legacy to the World," and which may be taken with safety and advantage: Take a table-spoonful of common tar, three spoonsful of honey, three yolks of hens' eggs, half a pint of wine: mix together in a dish with a knife or spoon, then bottle for use.

Dose, a tea-spoonful morning, noon, and night, before eating. Drink barley tea for constant use.

Mr. Crittenden informs me that he was cured of a disease supposed to have been consumption, by an Indian doctor, in the following manner: A strengthening plaster was put on the breast; a tea was also made of equal parts of rock polypody and spice or fever bush, drank freely through the day. Pulverized blue flag was given, about ten grains, every other day; and, to relieve his cough, the following mixture:

Beat up one egg to the consistence of froth; then take of honey one table-spoonful; tar, one tea-spoonful; add the egg, combine the articles, and take the whole for a dose, and repeat two or three times a day.

It would appear that the atmosphere on the sea board is so modified by the ocean, that it maintains a greater uniformity than the interior of the country; and, therefore, a residence near the salt water may be the best for consumptive invalids. But any change is often very beneficial.

DIET AND REGIMEN.

The diet must be light and nutritious; animal food should be avoided, and whatever is heating and indigestible: oysters are good. The following makes a very excellent kind of diet: Boil buttermilk, thicken with rye flour and Indian meal equal parts. When taken from the fire break in an egg, previously beaten, and eat with molasses or sugar. Milk fresh from the cow is excellent. As a general rule, whatever digests well may be used. The Irish moss makes a pleasant and useful mucilage; boil a little in water and sweeten; drink freely.

Under the preceding treatment many have recovered who had all the symptoms of consumption. I impute, however, more virtue to *nature* than *art*.

Sponging the whole body with cold water daily, or the shower bath, then rubbing well with a coarse towel, is exceedingly valuable in removing that *predisposition* to a *check of perspiration* arising from atmospheric changes. I advised it some time ago to a patient who was subject to cold from exposure, and in a short time after he informed me that he had not taken cold since he commenced the practice. In the commencement the water may be *tepid;* bathing in salt water, warm, may be tried.

A current of air, particularly in a state of perspiration, should be avoided. We daily hear people dating their first attack of pulmonary complaints from *sitting in a cool place after having been over-heated, from being thoroughly soaked with rain, or from cold bathing in an improper state of the system.* Flannel should be worn, and over the shirt. Avoid as much as possible the city; the air, habits, dust, &c., are all unfavourable to health. The country atmosphere, exercise, and pursuits are better calculated to preserve and recover health.

Such efforts of the voice as are required in singing or playing on any wind instrument of music, frequently produce discharges of blood from the lungs; but the practice of reading or reciting for some time together, in a moderate tone of voice, tends to strengthen these organs, and to diminish the danger of pulmonary hæmorrhage from any sudden exertion.

If the presence of the symptoms characterizing this disease renders its existence no longer equivocal, the person so affected ought without delay to migrate toward a warmer climate. Should circumstances render this expedient impracticable, the next best plan a consumptive person can adopt is, to remove into a low and rather damp situation, where bilious diseases prevail. The fatal event of pulmonary consumption is uniformly accelerated by residing in an elevated region. There are even instances on record of phthisis making its appearance in families, previously unaffected by it, on changing their places of residence from a level to a hilly country. While, on the contrary, the inhabitants of extensive districts in low places enjoy a complete immunity from this disease. In Holland pulmonary consumption is a disease of comparatively rare occurrence. The same situations that predispose to ague are unfavourable to the *attack of phthisis, as if these two states of consumption were incompatible with each other. The physicians of ancient Rome were accustomed to send their consumptive patients to the low and marshy land of Egypt.* Cicero, the celebrated orator, who in his youth was threatened with consumption, as the hollow temples and sharp features of his remaining busts abundantly testify, travelled into Egypt for the recovery of his health. In this country the choice of situation is not sufficiently attended to.

N. B. As a farther preventive to consumption see *regimen*, page 313.

The Stethescope.—Many physicians profess to know all about the diseases of the lungs by this instrument, but I consider it very *fallacious;* besides, that person has very little judgment or experience who cannot form a correct opinion of consumption by the symptoms: all persons unacquainted with medicine seldom fail to do this. A minister of this city, at my request, gave me the following statement:

Dr. Beach—Mrs. M. being sick with consumption, (of which disease she finally died,) I took her to Boston to consult the physicians there. Dr. J. pronounced the *right lobes diseased* and the *left sound.* I then took her to another eminent physician, Dr. F., who also examined the lungs, and pronounced the *left lobes diseased* and the others nearly sound, exactly an opposite opinion. They both used the stethescope. Yours, &c., J. H. M.

CHAPTER XV.

PLEURISY. (*Pleuritis.*)

DESCRIPTION.

Pleurisy is an inflammation of the pleura, which lines the internal coat of the thorax and covers its viscera. When it is seated in this membrane, which lines the inside of the breast, it is called a true or internal pleurisy; but when it chiefly occupies the external parts, and principally affects the muscles within the ribs, it is called the spurious or bastard pleurisy. The pleurisy is most predominant in the spring season, and prevails among labouring people, especially such as are much exposed, and are of a sanguine constitution.

CAUSES.

Its causes are cold applied to the skin; sudden and great distention of the pleura in drawing breath; drinking cold liquors after being heated by violent exercise; cold, northerly winds; sleeping without doors, on the damp ground; wet clothes; plunging the body into cold water, or exposing it to the cold air, in a state of perspiration. Generally speaking, whatever obstructs perspiration may occasion the pleurisy. It may also be produced by drinking strong liquors; stopping issues, ulcers, sweating of the feet or hands, or other usual evacuations; the sudden striking in of the small-pox, measles, or any eruption. It may also be brought on by violent exercise, as running, leaping, wrestling, lifting heavy burthens, blows on the breast, &c.

SYMPTOMS.

This, like most other forms of fever, begins with chilliness and shivering, which are followed by heat, thirst, inquietude, and the other common symptoms of fever. After a few hours the patient is seized with a violent pricking pain in one of his sides, commonly about the short ribs, which sometimes extends itself toward the back-bone, sometimes toward the shoulder-bone, and toward the fore part of the breast; and this is attended with frequent coughing.

The matter which the patient spits up is at first small in quantity, thin,

and mixed with particles of blood; but as the disease advances, it is more plentiful and more purulent, but seldom without a mixture of blood. The pulse is remarkably strong, and seems to vibrate like the tense string of a musical instrument; and the blood drawn from a vein, as soon as it is cold, looks like melted suet. Sometimes there is little or no expectoration, and hence pleurisies are distinguished into moist and dry.

TREATMENT.

I formerly bled in the commencement of this disease, but more recently I have entirely dispensed with it, and substituted treatment which I have found far less injurious and much more effectual.

As soon as I am called to a patient labouring under an acute attack of the pleurisy, I administer two *tea-spoonsful of the sudorific drops* in half a pint of the infusion of *catnip*, and repeat the same in half an hour, if the first dose does not relieve the severe pain in the side. The feet are to be bathed in tepid water and ley. In conjunction with these means, it will be necessary to apply the following fomentation to the side: Cayenne or red pepper, (*capsicum annuum*,) alcohol or best brandy, one pint: simmer a few minutes together, then dip flannels in the same, and apply to the side. When cool, repeat the same. Should this not relieve the pain in one or two hours, apply the following fomentation: Take tanzy, (*tanacetum vulgare*,) worm wood, (*absynthium vulgare*,) hoarhound, (*marrubium vulgare*,) catnip, (*nepeta cataria vulgare*.) Boil all down together in a suitable quantity of water, and enclose the same in flannel, and apply to the side as warm as can be borne. This application mitigates the pain, relaxes the vessels, and prevents congestion. If there is much cough and difficulty of expectoration, give the following infusion: Pleurisy root, (*asclepias tuberosa*,) half an ounce; bruise, and add one pint of boiling water. Let this be drank freely through the day. This infusion acts as an expectorant and diaphoretic, and will be found altogether better than antimony. The drops recommended with the other auxiliaries produce in a short space of time a copious perspiration, and often cut short the disease in a few hours, or at most in a few days, and without debilitating or injuring the system, or protracting the disease, as bleeding invariably does. Should the pain in the side after the above treatment continue, which very seldom is the case, apply a *mustard plaster* over the seat of it, and sprinkle the *anodyne powders* or pulverized opium over it.

After submitting to this course of treatment, should not the inflammation be subdued, or nearly so, fifteen or twenty drops of the *tincture of digitalis* may be given every three or four hours in a tumbler of *pleurisy root* tea. If the patient is not free of pain at night, or should be very restless, give ten grains of the *diaphoretic powders*. Purgatives must also be given every day or two. In very severe cases I have applied a *blister*.

A person informs me that he had a severe attack of pleurisy, and his case was pronounced hopeless. An English physician prescribed as much *capsicum* as could lay on the handle of a tea-spoon, given in spirits, and the side bathed with the tincture of the same; it afforded relief, and he soon recovered.

REGIMEN.

The diet ought to be cool, slender, and diluting. The patient must avoid all food that is hard of digestion, and everything of a heating or stimulating nature. His drink may be panado, gruel, &c.

Case 1.—Mr. A——, residing in Christie-street of this city, was supposed to be dying with pleurisy; catching for breath, and unable to articulate, so severe was the complaint. Cough excessive, and no expectoration. The *sudorific drops* were administered in a strong infusion of *catnip*, *fomentations* to his side, feet bathed, &c. The effect was, in a very short time to produce a copious perspiration, which removed the acute symptoms almost immediately. In a few days he was well and attending to his business.

Case 2.—A lady in Essex-street was taken in a similar manner. The pain was so acute in the side that it was with the utmost difficulty that she could breathe; constant inclination to cough; great fever; pulse tense, quick, and hard; her distress was so very great that I thought it best to bleed her, as it appeared that she could not live but a few minutes. I asked Dr. Downing, the physician who accompanied me, (a real Brunonian,) for his lancet. He objected to the bleeding, and immediately replied, "*administer the sweating drops.*" I hesitated, fearing that I should jeopardise the life of the patient, but finally concluded to try the powers of *vegetable* medicine alone. I accordingly administered it, together with a large quantity of an infusion of *catnip*, with the other medicines recommended, and relief was afforded in a few minutes. She rapidly recovered, and in a few days was about her business as strong as ever. Had this patient been bled, as is now practised by physicians, in all probability it would have killed her, or she would have suffered under the influence of debility for a long time. A small volume might be filled with similar cases.

We now ask, if the worst cases of pleurisy can be cured without bleeding, cannot every disease incident to the human body?*

CHAPTER XVI.

INFLAMMATION OF THE HEART. (*Pericarditis.*)

DESCRIPTION.

This is an inflammation of that membranous bag which surrounds the heart, the use of which is to secrete and contain the vapour of the pericardium, which lubricates the heart, and thus preserves it from concreting with the pericardium.

SYMPTOMS.

Pain in the region of the heart, suffocating weight, violent palpitation, motion of the heart, breathing by starts, dyspnea, or difficulty of breathing, increased by motion or exercise. Pressure also aggravates the symptoms. Pulse frequent and bounding; the countenance has a peculiar pale and haggard appearance.

TREATMENT.

The treatment of this complaint is very similar to other inflammatory diseases. The *sudorific drops* may be given until perspiration is produced, and repeated occasionally, to keep up a determination to the surface.

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* In the above case I applied a blister to the side.

If the pain and symptoms are very acute, apply a *mustard plaster* over the region of the heart. The following pill may be given every four hours through the day: Fox glove, (*digitalis purpurea,*) pulverize, and form into a pill of two grains; or the tincture may be given.

Should there be much distress, want of sleep, &c., give the *diaphoretic powders;* and give also freely an infusion of catnip, and let the feet be frequently bathed.

SECTION I.

ENLARGEMENT AND CHRONIC INFLAMMATION OF THE HEART. (*Hypertrophy.*)

DESCRIPTION.

The same symptoms as in the acute, but with less violence, and more protracted. It may arise from enlargement of the heart, or sub-acute inflammation of that organ.

TREATMENT.

Give the *digitalis tea* five or six times during the day. A strengthening plaster may be laid over the region of the heart, and the bowels be purged by the *compound powder of jalap.*

REGIMEN.

Great care is necessary in these complaints. No stimulating food or liquor should be taken. Avoid violent exercise of every kind, great fatigue, and whatever has a tendency to debilitate the system. The food should be light, and in no respect stimulating.

CHAPTER XVII.

INFLAMMATION OF THE DIAPHRAGM. (*Paraphrenitis.*)

DESCRIPTION.

This disease is produced by an inflammation of the diaphragm that divides the thorax from the abdomen, usually called the *midriff.* *Causes*, the same as pleurisy.

SYMPTOMS.

There is very violent pain, which is deep-seated under the short ribs, striking through to the back; breathing quick, small, and difficult; frequent sickness and hiccough; the pulse is small, hard, frequent, and irregular. It is nearly connected with pleurisy. *Treatment*, the same as pleurisy.

CHAPTER XVIII.

INFLAMMATION OF THE STOMACH. (*Gastritis.*)

DESCRIPTION.

This is an inflammation of the coat or coats of the stomach, characterized by fever, great anxiety, heat, pain over the region of the organ, increased when anything is taken into the stomach; hiccough; pulse small and hard; and great debility.

CAUSES.

Inflammation of the stomach is produced by acrid substances taken into the stomach, such as arsenic, antimony, mercury, &c. Likewise by food or drink of an improper kind; drinking cold liquor when the body is heated. It may be brought on by inflammation of some of the neighbouring parts attacking the stomach, or a sudden check of perspiration from any cause.

SYMPTOMS.

Burning heat, pain, and swelling, particularly after any liquor has been swallowed; hiccough; cold extremities; hard, quick, and tense pulse; pain which is produced by pressure. There is also great thirst; when anything is ate or drank, it produces great difficulty of breathing and swallowing; sometimes syncope and fits will ensue. There is restlessness, with continual tossing of the body, and great prostration of strength.

TREATMENT.

The *Indications of Cure* will be, to allay the irritability of the stomach, by lessening the inflammation.

In this disease it will be necessary to give cooling and mucilaginous drinks; and none will be found better than the mucilage of *slippery elm bark*. Apply fomentations to the stomach. An ounce of sweet oil may be given every day; and if the vomiting is very troublesome, a soda powder may be taken as often as it occurs. Should this not mitigate the symptoms, the *anodyne powders* may be given, a few grains at a dose, as often as the pain becomes violent. The feet must be often bathed; and should the disease continue obstinate, apply a *mustard plaster* over the region of the stomach, and afterward between the shoulders. Give also the *neutralizing mixture*.

Vomiting.—Should vomiting continue, give the following: Bicarbonate of potash, one drachm, or a tea-spoonful; mint water, or tea, half a pint: mix. Give a tea-spoonful or two occasionally, or as often as the vomiting occurs.

All acrimonious, heating, and irritating food and drink are carefully to be avoided. The weakness of the patient may deceive the bystanders, and induce them to give him wines, spirits, or other cordials; but these never fail to increase the disease, and may occasion sudden death. The inclination to vomit, too, may often impose on the attendants, and make them think a puke necessary; but that, too, is not good practice. The food must be light, thin, cool, and easy of digestion; it must be given in small quantities, and

should neither be quite cold nor too hot. Thin Indian meal gruel has a charming effect in this complaint; light toasted bread dissolved in cold water, or very weak chicken broth, are proper. The drink should be clear whey, barley water, in which toasted bread has been boiled, or decoctions of mucilaginous vegetables, as *marsh mallows*, *bene plant*, and *slippery elm*. The last case I had was so severe, I ordered a few leeches over the stomach.

CHAPTER XIX.

INFLAMMATION OF THE LIVER. (*Hepatitis.*)

DESCRIPTION.

By this disease we understand an inflammation either in the membranes or substance of the liver, characterized by febrile excitement, with tension and pain of the right side often pungent, like that of pleurisy, but more frequently dull; a pain at the top of the shoulder-blade; difficulty of breathing, dry cough, vomiting, and hiccough. Yellowness of the eyes sometimes appears. This disease is either chronic or acute.

CAUSES.

The causes are all those producing inflammation; scirrhous tumours in the liver; injuries from external violence; mercury; hot climate; obstructing the hepatic ducts; anything that suddenly cools the liver after it has been much heated; drinking largely of wines and spirituous liquors; eating hot, spicy aliment; violent exercise; exposure of the heated body to the cold air, &c.

Those who have exposed themselves to the destructive habit of drinking to excess are particularly liable to diseases of the liver. Tubercles, scirrhous hardness, and chronic inflammations are the change which in general are produced in this organ by this pernicious practice.

SYMPTOMS.

The *acute* species of this complaint comes on with a pain in the right side, extending up to the shoulder, which is much increased by pressing upon the part, and is accompanied with a dry, short, and frequent cough, oppression of breathing, and difficulty of lying on the left side; together with nausea and sickness, and often with a vomiting of bilious matter; tongue coated. The urine is of a deep saffron colour, and small in quantity; there is loss of appetite, great thirst, and costiveness, with a strong, hard, and frequent pulse; and when the disease has continued for some days, the skin and eyes become tinged of a deep yellow.

The *chronic* species is usually accompanied with a morbid complexion, loss of appetite and flesh, costiveness, indigestion, flatulency, pains in the stomach, a yellow tinge of the skin and eyes, clay-coloured stools, high coloured urine, depositing a red sediment and ropy mucus; an obtuse pain in the region of the liver, extending to the shoulder, and not unfrequently with a considerable degree of asthma.

The symptoms are, however, often so mild and insignificant as to pass almost unnoticed; as large abscesses have been found in the liver upon dissection, which in the person's life-time had created little or no inconvenience, and which may have been occasioned by some previous inflammation.

Hepatitis, like other inflammations, may end in resolution, suppuration, gangrene, or scirrhus; but its termination in gangrene is a rare occurrence. Sometimes suppuration takes place, and the matter is discharged by vomiting or purging.

TREATMENT.

Indications of Cure.—As in all other inflammatory diseases, the first object will be to lessen the determination of blood to the part inflamed, by equalizing the circulation; to effect which, it will be necessary to produce a free perspiration. The feet must be bathed in warm water and ley, and a tea-spoonful of the *sudorific drops*, in half a pint of an infusion of *catnip*, must be given every hour or two until the pain ceases, or perspiration is produced or promoted. The patient must drink freely of *balm* or *pennyroyal tea*. Let fomentations be applied warm to the side or over the region of the liver. Should they not take off the tension and afford relief, apply *cayenne pepper* and brandy simmered a few minutes together. These may be applied often, and as warm as the person can bear. A purgative may be given daily while the acute symptoms continue. In this disease vomiting is a very common symptom; to allay which, give a little supercarbonate of potash, or sal æratus, in peppermint water or tea, as often as the vomiting returns. This will allay the irritability of the stomach. Should not these applications mitigate the symptoms, apply the following plaster to the side: Take mustard, red or cayenne pepper, equal parts; Indian meal, a table-spoonful; vinegar sufficient to form a plaster or poultice of suitable consistence. Apply warm to the side, and continue it as long as the patient can bear. I have occasionally applied a blister in this disease, but I find that *mustard plasters* do much better. Blisters should be dispensed with, their effect always proving very troublesome and not unfrequently serious. If the pain continues severe and prevents sleep, ten grains of the *diaphoretic powders* may be given in *currant jelly*, roasted apple, or any other convenient vehicle, every two hours until relief is afforded. Or, if there is much nausea, give the *anodyne powders*.

If the stomach continues to exhibit a morbid state, which is sometimes the case from sympathy, great relief will be found by giving a mild *emetic* every other morning or evening; this will stimulate the liver to healthy action when other means fail. And should the disease be so obstinate as to resist the above treatment, which with me has been invariably successful, a few leeches may be applied; one application of which is far better than many bleedings from the arm. The *neutralizing mixture* may likewise be given.

REGIMEN.

The same regimen is to be observed in this as in other inflammatory disorders. All heating articles are to be totally avoided, and cool diluting liquors, as whey, barley water, &c., drank freely. The food must be light and thin, and the body, as well as the mind, kept easy and quiet.

SECTION I.

CHRONIC INFLAMMATION OF THE LIVER. (*Liver Complaint.*)

DESCRIPTION.

Sometimes inflammation of the liver becomes chronic in its character, as before-mentioned, arising from long-continued intermittents and other causes. The symptoms are, a dull pain in the right side and top of the shoulder, the stomach sometimes disordered, yellow tinge of the skin, and often a swelling over the region of the liver.

There is usually in this complaint dyspepsia, cough with slight expectoration, headache, lowness of spirits or despondency, debility or weakness, flatulence, morbid sensibility, great irritability, jaundice, gall stones, emaciations, stools clay coloured, tongue coated, costiveness and indigestion, urine pink coloured, countenance sallow.

TREATMENT.

An *emetic* may be given occasionally, and our *common purgatives* administered. Deobstruent medicines must likewise be given, and none is better than the *hepatic pills*. These soon remove the pain and obstruction, and will be found exceedingly valuable in liver complaint. Give two or three at a dose twice a day. Apply the common *strengthening plaster* to the side, and let it remain for several weeks. If the disease proves obstinate, give a portion of *mandrake* twice a week. The cure of this complaint is generally slow, requiring sometimes six months or more.

Diet, the same as in dyspepsia.

CHAPTER XX.

INFLAMMATION OF THE SPLEEN. (*Splenitis.*)

DESCRIPTION.

This disease very much resembles inflammation of the liver, but the pain is in the left side.

SYMPTOMS.

It is characterized by fever, tension, heat, tumour, and pain in the left side, increased by pressure. This disease comes on with a remarkable shivering, succeeded by a most intense heat and very great thirst; a pain and tumour are perceived in the left side, and the paroxysms for the most part assume a quartan form; when the patients expose themselves for a little to the free air, their extremities immediately grow very cold. If a hæmorrhage happens, the blood flows out of the left nostril. The other symptoms are the same as those of inflammation of the liver. Like the liver, the spleen is also subject to a chronic inflammation, which often happens after agues, and is called the "ague cake," though that name is also frequently given to a scirrhous tumour of the liver succeeding intermittents.

CAUSES.

The causes of this disease are the same as those of other inflammatory disorders; but those which determine the inflammation to that particular part more than to any other are very much unknown, excepting cold. It attacks persons of a very plethoric and sanguine habit of body rather than others.

TREATMENT.

During the acute stage of this disease prescribe remedies to subdue the inflammation.

1. Give a purgative every other day, according to the strength of the system and severity of the disease.
2. Give *sudorific medicines* to produce perspiration.
3. Apply cayenne pepper, (*capsicum annuum*,) mixed and simmered with spirits, to the part.
4. Should this not relieve the pain and mitigate the symptoms, a mustard plaster may be applied to the side or over the region of the spleen.

SECTION. I.

CHRONIC INFLAMMATION OF THE SPLEEN.

The spleen sometimes becomes enlarged, and suppurates. This may be known by the soft or scirrhous feeling. In either case it is seldom attended with danger. Should symptoms of suppuration appear, a poultice may be applied to the part, and thus be promoted. Should the spleen become soft and pulpy, and partly destroyed, as is sometimes the case, a plaster may be applied to the side, and purgatives and emetics occasionally used, together with the ***hepatic pills***.

CHAPTER XXI.

INFLAMMATION OF THE INTESTINES OR BOWELS. (*Enteritis.*)

DESCRIPTION.

An inflammation of the mucous membrane lining the intestines. This disease is characterized by fever, fixed pains in the abdomen, costiveness, and vomiting.

CAUSES.

An inflammation of the intestines is occasioned by long-continued costiveness or hardened feculent matter lodged in some part of the tube; by the strangulation of a protruded portion of the gut in a rupture; by preceding colic; eating unripe fruits or great quantity of nuts, and by scirrhous tumours of the intestines, or strictures; but the most frequent cause is exposure to cold, particularly when applied to the lower extremities or bowels, and occasionally by cold drink swallowed when the body is much heated by exercise.

SYMPTOMS.

This dangerous and painful disease is characterized by acute pain in the

bowels, which is much increased upon pressure, and shoots round the navel in a twisting manner; there is obstinate costiveness, tension of the belly, and the vomiting generally bilious, or dark and fetid; the urine is high coloured, the pulse quick, hard, and contracted, with some degree of febrile heat, thirst, and great depression or loss of strength. The patient is constantly belching up wind, and in protracted cases he even discharges excrement by the mouth, the motion of the intestines becoming inverted from their being no passage downward.

TREATMENT.

Stimulating purgatives should be avoided in this disease, as they are calculated to exasperate it. The most cooling treatment and regimen must be followed. The feet should be frequently bathed in strong ley water, and warm fomentations applied to the abdomen. An ounce or table-spoonful of *cold-pressed castor oil* may be given every two hours until it acts upon the bowels, and afterward administered as occasion requires.

Should not this operate as a laxative or purgative, administer our *common injection*, to which add a tea-spoonful of *laudanum*.

Administer this injection blood-warm with a French syringe, to be repeated according to the urgency of the symptoms. If the pain is severe, it may be given every two hours.

To allay the irritation of the stomach and vomiting, which not unfrequently attend this disease, as well as to mitigate urgent symptoms, ten grains of the *anodyne* or *diaphoretic powders* may be given every two hours till relief is afforded, and a dose also given every night.

Bleeding and blistering are much resorted to in inflammation of the intestines; yet I have never known any benefit derived from them; but, on the contrary, much injury.

Should not this treatment arrest the complaint in a short time, the following fomentation may be applied: Take tanzy, wormwood, hoarhound, and hops. Boil all in vinegar and water, then enclose them in flannel or muslin; apply to the abdomen, and change them often.

Should vomiting be a predominant symptom, the following preparation may be given: Infusion of spearmint, half a pint; sal æratus, a tea-spoonful. Give a table-spoonful every hour.

The inflammation sometimes is so great that the passage of the bowels seems closed, so that nothing will pass them. Should this be the case, and should not the means already prescribed prove effectual, the patient may be put into a warm bath, and occasionally repeated. Should the swelling, inflammation, or pain continue after the above treatment, let a *mustard plaster* be applied to the bowels, and kept on till the skin is reddened, and the *anodyne powders* given every two hours.

Give also *senna* and *manna*, to which may be added a tea-spoonful of *epsom salts*. In very urgent cases a few leeches may be applied to the bowels.

REGIMEN.

The regimen in this disease should by no means be stimulating, but the reverse; the most cooling, demulcent, and diluting, such as *slippery elm*.

INFLAMMATION OF THE PERITONÆUM.

This membrane envelopes and surrounds all the different organs which are

contained in the abdomen or cavity of the belly; it defends them from injury by any motion or concussion, and their whole mass is prevented through its means from being misplaced by their own weight.

The disease is accompanied by symptoms pretty similar to the same affection of the intestines, just pointed out; it arises from the same causes, and must be treated in a similar manner.

CHAPTER XXII.

INFLAMMATION OF THE KIDNEYS. (*Nephritis*)

DESCRIPTION.

Inflammation of the kidneys is known by fever, pain in the region of the kidneys, and shooting along the course of the ureter; drawing up of the testicles, numbness of the thigh, vomiting, urine high coloured and frequently discharged, costiveness, and colic pains. It is symptomatic of calculus, gout, &c.

CAUSES.

The causes which produce this complaint are external contusions, strains of the back, acrids conveyed to the kidneys in the course of the circulation, violent and severe exercise either in riding or walking, calculous concretions lodged in the kidneys or ureters, and exposure to cold. In some habits there is an evident predisposition to this complaint, particularly the gouty, and in these there are often translations of the matter to the kidneys.

SYMPTOMS.

This disorder is characterized by an acute, pungent, or more frequently an obtuse or dull pain in the region of the kidneys, shooting along the course of the ureters, or ducts which convey the urine from them into the bladder; pain also in the small of the back, together with a fever, and frequent discharge of urine, which is small in quantity, red, and high coloured, yet, in the highest degree of the disease, watery and limped; the thigh feels benumbed, and there is a pain in the groin and testicle of the same side, together with a retraction. There are, moreover, continual eructations, with bilious vomitings, debility, &c.

This disease sometimes assumes a chronic form, known by heat, pain, &c., over the loins.

TREATMENT.

The first object to accomplish is, to relax the system by producing perspiration. If the pain be violent, apply over the seat of the disease the following fomentation of bitter herbs: Take *hops* and *wormwood*, equal parts; simmer in vinegar and water; apply warm, and renew often.

The *diuretic drops* may be given to diminish the inflammation of the kidneys, to promote the urinary discharge, &c.; give a tea-spoonful three or four times through the day, in one or two tea-spoonsful of the mucilage of

gum Arabic. At the same time give through the day a decoction of *marsh-mallows, parsley, mint*, or *slippery elm tea;* make a strong decoction, drink freely and warm. This promotes the discharge of urine and allays irritation.

It will be necessary, if the patient be of a costive habit, to give a purgative every day or two, according to the violence of the disease. Sometimes spasms arise from irritation of gravel passing the ureters; when this is the case an *opium pill* or *powders*, containing two or three grains, may be administered every two hours until relief is afforded, and the patient may be put into a warm bath; this usually affords great and sudden relief; a tea-spoonful or two of *spirits of nitre* in a gill of *mint tea* is very beneficial. Equal parts of *spirits of mint* and *spirits of nitre*, mixed, and given often in half table-spoonful doses, are an excellent remedy.

When the disease is chronic, and there is pain in the small of the back, &c., let the part affected be bathed with the following:

Red pepper or cayenne, (*capsicum,*) one ounce; alcohol, one pint; bathe the parts two or three times a day, and use the drops mentioned above. In the course of a few days, or when the inflammation has measurably subsided, apply a *strengthening plaster* to the back.

Vomiting.—Should the disease be attended with vomiting, which is often the case, give *sal æratus:* one tea-spoonful may be dissolved in half a pint of cold water; a table-spoonful given as often as vomiting takes place. At the same time give an infusion or tea of *peppermint.*

I attended one person with this disease, in which the symptoms were so violent that her life was in imminent danger; the *hot bath* soon cured.

REGIMEN.

Everything of a heating or stimulating nature is to be avoided. The food must be thin and light; as panado, Indian gruel, with mild vegetables, mint tea drank freely. Emollient and thin liquors must be plentifully drank; as *pennyroyal* tea, sweetened with honey, decoctions of *marsh-mallow roots*, and other *diuretic plants*, with barley, &c. Let the feet be often bathed.

CHAPTER XXIII.

INFLAMMATION OF THE WOMB. (*Hysteritis.*)

DESCRIPTION.

This disease is characterized by fever, heat, tension, tumour, pain in the region of the womb, and vomiting.

CAUSES.

Besides the common causes productive of inflammation, this disease sometimes take place after delivery, particularly where the labour has been long protracted, instruments have been used, or the lochial discharge, which ought to have taken place, has been suddenly stopped by an exposure to cold.

SYMPTOMS.

It is accompanied by pains in the lower region of the belly, which are

greatly aggravated upon pressure with the hand, as also by tension or tightness of the surrounding parts, considerable depression of strength, a change of countenance, increased heat of the whole body, great thirst, nausea, and vomiting. The pulse is weak, but hard and frequent; the bowels confined, the urine high coloured and scanty, the secretion of milk somewhat interrupted, and the lochial discharge much diminished, if not wholly suppressed.

TREATMENT.

Perspiration ought to be promoted as soon as possible. An infusion of *catnip* should be drank freely, with a tea-spoonful of the *diaphoretic powders* or *sudorific drops*. The abdomen should be freely fomented, as in other inflammatory diseases; and, if necessary, apply mustard.

When there is great irritation, an *anodyne* may be administered; ten grains of the *diaphoretic powders*.

A *cathartic* may be occasionally given.

For inflammation of the womb I have used the following with excellent effect:

Take the *spirits of spearmint*, made by bruising the green mint and adding best of Holland gin: add as much *spirits of nitre;* give freely. This has cured several cases.

The dry mint may be added to the gin, and a tincture thus made.

CHAPTER XXIV.

INFLAMMATION OF THE BLADDER. (*Cistitis.*)

DESCRIPTION.

This disease is characterized by pain in the region of the bladder, attended with fever and hard pulse, frequent painful discharges of urine, with suppression and general tenesmus.

CAUSES.

It is occasioned by an improper use of acid medicines, (such as cantharides,) inflammation extending along the urinary channel, permanent or spasmodic stricture, local irritation from the lodgment of a stone, hardened fœces, or a diseased state of the prostate gland, and mechanical injury, as well as by all the usual causes of inflammation.

SYMPTOMS.

Where this disease exists, an acute burning pain and some degree of tension at the bottom of the belly, with a constant desire to make water, a difficulty in voiding it, or total stoppage, a frequent inclination to go to stool, much uneasiness and heat, a general febrile disposition, a frequent and hard pulse, sickness and vomiting, not unfrequently attend.

It sometimes becomes chronic, and is very afflicting. There is a frequent desire to urinate, and a discharge of mucus or blood.

TREATMENT.

We must employ similar means in this disease as in the inflammation of the kidneys. The *hip* or *warm bath* may be employed morning and evening.

The *diuretic drops* must be given; also *mint* and *barley* tea.

Spirits of mint and *spirits of nitre*, equal parts, may be given every two hours, in half a tumbler of herb tea or water, as in inflammation of the kidneys.

Fomentations of bitter herbs must also be applied over the region of the bladder.

The patient should abstain from every thing that is of a hot, acrid, and stimulating quality; and should live on gruels and mild vegetables.

Purgatives must also be administered.

In the chronic form I have seen great benefit derived from repeated purgatives, and a blister occasionally applied on the *pubis* or lower part of the bladder: take also the teas of *burdock, wild carrot, wild parsley seed, dandelion, cleavers*, and *pennyroyal*. *Diet*, the same as above.

CHAPTER XXV.

INFLAMMATORY RHEUMATISM. (*Rheumatismus.*)

DESCRIPTION.

The rheumatism is a very painful disease, which affects the muscles and joints in different parts of the body, and in many cases so nearly resembles the gout as to be distinguished from it with difficulty. It makes its attacks in all seasons of the year when the atmosphere is moist and variable, but is more frequently met with in the autumn and spring. It is sometimes accompanied with fever, and sometimes there is none. In the former instance it is known under the name of acute rheumatism; in the latter it is called chronic rheumatism.

CAUSES.

Obstructed perspiration, occasioned either by lying in damp linen or damp unventilated rooms, wearing wet clothes, or being exposed to cold air, after having been much heated by exercise or other ways, may be considered the chief and most frequent causes of the rheumatism.

The gout is the disorder which most nearly resembles the rheumatism, but in the latter it is principally the large joints which are affected; moreover, the pain frequently shifts its seat, and follows the course of the muscles in its transition to other parts. Besides, it is in general preceded by flatulency and indigestion, as is the case in gout; and it occurs at any period of life, whereas gout is usually confined to adults.

SYMPTOMS.

The acute rheumatism generally commences with weariness and shivering, succeeded by heat, thirst, restlessness, anxiety, a hard, full, and quick pulse, and all the usual symptoms of inflammatory fever. After a short lapse of time acute pain is felt by the patient in one or more of the large joints

of the body, and these are followed by a tension and swelling of the parts so affected. The pain is transitory, and generally shifts from one joint to another, leaving the part it occupied red, swollen, and very tender to the touch. The tongue is white, the bowels are obstinately costive in general, the urine is high coloured, the pulse full and hard; the blood, when drawn from a vein, exhibits a thick, buffy-coloured coat on its surface, as in pleurisy; and sometimes there is a profuse sweating, unattended, however, by any relief. When the patient is in bed the pains are usually much increased, and he cannot bear the least motion without their being highly aggravated.

The chronic form of rheumatism may either be a consequence of the termination of the acute, or it may be independent of it. In the first cases the parts which are affected with inflammation are left rigid, weak, and in some instances puffed up; and the pain, not being moveable, is now confined to particular parts; sometimes, however, it shifts from one joint to another, but without being accompanied by any inflammation or fever. In the latter cases, where it has risen from an exposure to cold and sudden vicissitudes of the weather, pain seizes the head, shoulders, knees, loins, wrists, and other parts; and these often continue for a considerable length of time, and then go off, leaving the seat they occupied in a state of debility.

Very alarming and fatal symptoms sometimes follow the recession of rheumatism. It passes to the *heart*, *diaphragm*, *stomach*, *bowels*, and every part of the body. When it is translated to the heart the patient is seized with acute pain and great anxiety over that region, palpitation, partial fainting, pale, distressed countenance. When it is translated to the brain it is attended with heaviness, with acute pain in the head, intolerance of light and sight, wild and anxious expression of countenance, occasional delirium, &c.; when the stomach is affected by a recession of this disease, pain, nausea, and vomiting. Sometimes the bladder is affected with rheumatism, producing a retention of urine and pain over the seat of that organ. Sometimes it is translated to the lungs and pleura, which become affected, producing an inflammation of those parts. Sometimes it passes to the uterus, or womb, &c.

Dr. Cox, of England, states that the numerous cases of organic disease of the heart and pericardium which he met with at Guy's Hospital were referable to, or connected with, rheumatism. All of which symptoms unquestionably arise from a retention of *morbid humours* in the system.

TREATMENT.

Indications of Cure.—The first and great object in acute rheumatism is, to lessen the inflammatory action and lower the fever.

A late author, Dr. Eberle, writes: The very profuse sanguineous evacuations so frequently resorted to in this complaint, so far from proving beneficial, lead often to very disastrous consequences; for experience has fully established the fact, that metastasis of the local affection to an internal organ is particularly favoured by thus draining the system of its blood, and impairing the vital energies.

Is it not remarkable that such a great change should take place in the minds of physicians as regards the treatment of this disease? They have ever considered it of the greatest importance to bleed copiously and repeatedly, and this is agreeably to their pathological views of acute rheumatism being characterized by so much inflammation. Are they not as liable to be mistaken in their views and treatment of other diseases?

Purgatives.—In this complaint it will be necessary,

1st. To give purgatives. Two or three operations are far more beneficial than several bleedings. The *common vegetable purgative* may be given, and repeated occasionally.

2d. *Sudorifics.*—It will be of the highest importance to administer sudorifics, and to promote free perspiration. For this purpose the vapour bath may be used, if the patient be able to sit up; otherwise a tea-spoonful of the *sudorific drops* may be given every two hours till perspiration takes place, and afterward to be given occasionally to keep up a moisture of the skin, to be aided by drinking freely of an infusion of *catnip*. Gentle and uniform perspiration is always serviceable.

Emetics.—Some persons speak highly of emetics; I cannot speak of their effects from experience, never having used them in this complaint.

Anodynes.—If the pain prevents sleep, ten grains of *diaphoretic powders* may be given at bed-time in syrup or molasses.

Oils or Liniments.—The following liniment is very valuable: Take tincture of opium, one ounce; gum camphor, one quarter; oil of hemlock, one half; alcohol, one pint; mix. Let this be occasionally applied blood-warm to the parts most painful and swelled.

If the inflammation be very acute, and the heat and swelling considerable, bathe the parts with the following wash: Take spirits, half a pint; vinegar, half a pint; rain water, half a pint; salt, half an ounce; mix. Let it be applied tepid, with a piece of flannel, three or four times in the course of the day. This wash often affords great relief, by lessening the heat, pain, and swelling.

Let the following liquid be taken: Hydriodate of potash, one ounce; water, one quart; mix: take from half to a wine glass three or four times a day.

The patient may drink through the day the following: Take hemlock tree leaves, one ounce; boiling water, one quart. A wine glass to be taken at a dose, and as often as the stomach can bear.

When there is great tension, swelling, and pain of the joints, the following poultice will be found excellent:

Simmer together for a short time *bran* and *vinegar*, until a poultice of proper consistence is formed, and apply tepid. I have known this simple mixture afford relief when all other applications have proved useless.

This treatment will be found very effectual in curing inflammatory rheumatism; although the disease under the best treatment will be sometimes protracted, at other times it is cured very soon. By the common treatment it often degenerates into the chronic rheumatism, or is attended with other very serious consequences.

The last case of inflammatory rheumatism I attended recovered rapidly under the following treatment. Bowels regulated by purgatives: Take *hydriodate of potash*, one ounce; add one quart of water. Dose, half a wine glass three times a day. Occasionally a dose of the *diaphoretic powders* were given, followed by a tea of the leaves of the hemlock tree, and also drank freely through the day.

He bathed with the following liniment: *Oil of hemlock*, one ounce; *gum camphor*, half an ounce; *tincture of opium*, one ounce; *alcohol*, one pint: mix, and bathe three or four times a day. A *mustard plaster* is sometimes very beneficial.

Rheumatism in the Head.—In a very obstinate and painful case of this description I prescribed *stramonium*, simmered in spirits, and applied externally

to the parts affected, and it afforded relief. It has relieved also in other cases

REGIMEN.

Cool and diluting diet, consisting chiefly of vegetable substances, milk, &c., will be the most proper. Nothing heating should be prescribed in food or drink Buttermilk may be drank freely; also barley water and gruel.

SECTION I.

CHRONIC RHEUMATISM

DESCRIPTION

The chronic rheumatism differs from the acute in its not being attended with fever or much inflammation, and the pain being usually confined to some particular part of the body, as the shoulders, arms, or loins; but it generally occupies those joints which are surrounded by many muscles, and particularly such muscles as are employed in the most constant and vigorous exertions When it affects those of the loins it is called *lumbago;* when seated in the hip joint it is known by the name of *sciatica.*

CAUSES.

The causes of rheumatism are frequently the same as those of an inflammatory fever, viz., an obstructed perspiration, the immoderate use of strong liquors, and sudden changes of the weather; all quick transitions from heat to cold are liable to occasion the rheumatism. "The most extraordinary case of rheumatism that I ever saw," says a writer, "where almost every joint of the body was distorted, was a man who used to work one part of the day by the fire and the other part of it in the water." Very obstinate rheumatisms have likewise been brought on by persons not accustomed to it allowing their feet to continue long wet. The same effects are often produced by wet clothes, damp beds, sitting or lying on the damp ground, travelling in the night, &c.

The rheumatism may likewise be occasioned by excessive evacuations or the stoppage of customary discharges. It is often the effect of chronic diseases, which vitiate the humours.

The rheumatism prevails in cold, damp, marshy countries. It is the most common among those who are ill-clothed, live in low damp houses, and eat coarse and unwholesome food. which contains but little nourishment and is not easily digested

SYMPTOMS

Chronic is often the consequence of acute rheumatism; but it occurs also, frequently, as a direct consequence of exposure to cold and damp air, more especially when the system is under the influence of mercury. The affected parts are commonly neither swollen nor red; nor is there often any manifest fever connected with the chronic variety of the disease, although quickness, tension, and contraction of the pulse are in some instances present in the evening and during the night. The pain often wanders from one part to

another, fixing itself by turns in the head, shoulders, knees, wrists, fingers, hips, loins, &c., more especially in those cases which approach the sub-acute character. Some individuals are hardly ever entirely free from pain; others are affected with it only occasionally, on the occurrence of damp and cold weather. In some instances the pain is seated in the joints; in others, in the muscles and parts situated between the joints. After remaining at rest for a while the patient feels stiffness and pain on attempting to move the affected limb; but, on using exercise until the body becomes warm, both the pain and stiffness usually disappear. Those who are subject to this form of the disease generally feel a dull aching pain in one or more joints on the approach of stormy and rainy weather. Severe and inveterate cases of chronic rheumatism are apt to give rise to organic disease of the tendons, wasting and hardening of the muscular structure about the affected parts. The joints stiff. A jelly-like effusion into the cavity of the affected joints occurs occasionally.

TREATMENT.

Indications of Cure.—The object in this disease will be,

1st. To stimulate the cutaneous vessels to a healthy action, and thus restore perspiration.

2d. To attenuate the thick viscid or sizy state of the blood which invariably attends this complaint.

Internal Remedies.—The *alterative syrup* may be given.

The following infusion may likewise be taken in conjunction with the above syrup: Take white pine bark, (*cort pinus sylvestris,*) burdock seeds, (*sem. arct. lappa,*) prickly-ash bark, (*xanthoxylum fraxineum,*) Virginia snake-root, (*serpentaria Virginiana,*) equal parts: make a strong infusion, and drink freely through the day.

After using the above prescription, should the complaint still prove obstinate, the following liquid may be administered: Take extract of poke-berry, (*phytolacca decandria,*) half an ounce; white pine turpentine, (*terebinth,*) half an ounce; add one quart of Malaga wine. Half a wine glass may be given three times a day, and the dose gradually increased to a wine glass.

External Remedies.—Bathe the parts with the following tincture: Take cayenne pepper, (*capsicum annuum,*) one ounce; alcohol, one quart: mix. To be applied warm with a piece of flannel. The parts may also be bathed with the *rheumatic liquid* two or three times a day, warm; and the *rheumatic pills* may likewise be taken.

The common *strengthening plaster* may be applied to the parts most affected after the use of the above articles, or when the disease has partially subsided.

The vapour bath may be occasionally used in this complaint. In consequence of the free perspiration it produces, it will be found very serviceable. If the disease proves very obstinate, give the *hydriodate of potash*, as in inflammatory rheumatism.

Lusk's Rheumatic Drops.—Mandrake roots half an ounce; black cohosh, half an ounce; prince's pine or pipsiseway, two drachms; prickly-ash bark, two drachms: bruise all, and mix; add to one quart of wine. Dose, a tablespoonful three times a day.

REGIMEN.

A heating or stimulating diet may be used in this disease.

Cayenne pepper and *mustard* may be taken with food; also articles containing ginger.

Flannel should be worn during the day, and taken off at night. The greatest precaution should be observed to prevent a check of perspiration, from the vicissitudes of the weather or other causes.

SECTION II.

MERCURIAL RHEUMATISM.

This disease is somewhat similar to the chronic, but more painful and more difficult to remove. It proceeds from the use of the universal panacea now given called mercury. At every change of the weather the person feels most intolerable pains; indeed his system is a complete barometer, by which he is enabled always to designate the variations of the weather. The treatment in this disease is similar to the chronic rheumatism. Sulphur and cream of tartar may be given internally, and a plaster composed of sulphur and Venice turpentine applied to the joints, and renewed often. The syrup mentioned in the preceding disease may likewise be freely taken, to eradicate the mercury from the system. The vapour bath will also be found useful.

The following is from "Dr. John Williams's Last Legacy to the World," and recommended in this disease: Take prince's pine-tops, horse-radish roots, elecampane roots, prickly-ash bark, bitter-sweet —bark of the root, wild cherry bark, mustard seed, a small handful of each; make a decoction and drink.

One gill of tar water into one pint of brandy, or the same proportion. Drink a small glass, before eating, three times a day.

The following remedy has been forwarded by a very respectable and judicious physician for insertion in this work.

For Sciatic or Sciaticæ Arteriæ.—Make a beer of the following articles: *Spruce*, *sage*, *sarsaparilla*, *hackmetac*, or, by another name, *tamarac*, garden *rhubarb*, *elder roots*, the bark of *burdock roots*, *Even roots*, or by some called *Even's root*, *rheumety* or *wintergreen*, (such as bears the red aromatic berries, grows low, and keeps green throughout the winter,) and *water-cresses*.

Syrup.—*Spikenard*, *comfrey*, *white Solomon's seal*, *Johnswort*, *sweet agrimony*, *prince's feather*, or what is called "love lies a bleeding," (grows in the garden,) *swamp brake roots*, (a plenty,) one pound of *raisins*, two ounces of *saffron*. Put all into an earthen pot, adding a layer of sugar between each layer of roots and herbs; cover the pot or jar with a rye dough or paste, put it in a hot oven, and, when it is sufficiently digested, wring out the liquor; add one-third rum or brandy. The beer is for common drink. The syrup is to be taken a wine glassful two or three times a day.

A young lady, who had been a long time afflicted and a cripple with this complaint, was cured by the above.

"In all instances of sciatica, during my practice," says Dr. Seely, "I found this medicine a sovereign specific; and I well know that the generality of mankind afflicted with sciatica call it the rheumatism, and that the quack, unacquainted with the system, is ignorant of the case, sports with his unwary patient, gulls from him his money, and, lastly, what is worse, robs him of his life."

CHAPTER XXVI

GOUT. (*Arthritis.*)

DESCRIPTION.

This disease is usually divided into the regular and irregular. When the inflammation occupies the joints to a great degree, and after a certain duration gradually disappears, leaving the health unimpaired, it is termed regular gout. Of the irregular gout there are three species, viz.:

1st. *The Atonic.* When there is not sufficient energy in the system to produce a proper degree of inflammation in the extremities, in consequence of which the general health is considerably affected, the stomach performs the office of digestion imperfectly, and the patient is troubled with flatulency, loss of appetite, eructations, violent pains of a spasmodic nature, and frequently with nausea, accompanied not unusually with dejection of spirits and other hypochondriacal symptoms.

2. *The Retrocedent.* In this the inflammation, having occupied a joint, ceases suddenly, and is translated to some internal part, such as the head, lungs, heart, or stomach.

3. *The Misplaced*, or where gout, instead of producing the inflammatory affection of the joint at all, seizes some internal parts, producing inflammation there, and giving rise to some symptoms which attend inflammations of those parts from other causes.

CAUSES.

The attacks of gout are generally in the winter or spring, and are rarely met with before the adult age, or middle period of life. Persons of a full and robust habit are most subject to this disease, particularly those who live luxuriously and lead an indolent inactive life; whereas those who are employed in constant bodily labour, and who live upon a vegetable diet principally, are seldom afflicted with it. Women are much less the subjects of it than men: no sex, or age, however old or young, are exempt from it; but in the latter cases it can only be ascribed to that predisposition or constitutional bias which is entailed by the parents of the child. An hereditary predisposition, therefore, as also too free an indulgence in the use of animal food, fermented liquors, venery, anxiety of mind, excessive evacuations, fatigue, the application of cold to the extremities, sprains, and intemperance, are to be considered as the chief causes which produce gout.

The disease may, in general, be readily distinguished from rheumatism, by the pains attacking the smaller joints instead of the large ones, as in the latter; by its not being accompanied, nor even preceded, at its commencement, with symptoms of inflammatory fever; and by the previous affection of the stomach with flatulency, eructations, and pain.

SYMPTOMS.

An attack of regular gout sometimes comes on suddenly, and without any previous warning; but most usually it is preceded by a belching of wind, flatulency in the stomach and bowels, nausea, weariness, dejection of spirits,

pains in the limbs, with a sensation as if cold water or wind were passing down the thigh; great lassitude and fatigue are felt after the slightest exercise, the bowels are costive, and the urine is of a pale colour.

The paroxysm most frequently comes on about two o'clock in the morning, with excruciating pain either in the joint of the great toe, the heel, calf of the leg, or perhaps the whole of the foot; and this, becoming more violent by degrees, is accompanied with shiverings, succeeded by heat, swelling, and redness, and other febrile symptoms. The pain, having attained its height toward the following evening, ceases gradually, a gentle moisture breaks out upon the skin, and the patient, being greatly relieved from his pain, falls asleep; but upon awakening he finds the parts before painful now much inflamed and swollen. During several succeeding evenings there is a return of both pain and fever, and these continue with more or less violence during the night, and toward morning they cease.

A fit of the gout consists of several such paroxysms as have been described; and although there may be some little alleviation in the symptoms after a day or two, still the pain and fever return every night, going off again the following morning. According to the disposition of the body to the disease, the strength of the patient, and season of the year will be the duration of a fit of the gout; but it usually continues at first for two or three weeks, and then goes off either by perspiration, an increased flow of urine, or some other evacuation; the scarf-skin of the parts which have been affected peeling off in branny scales, and some slight lameness and tenderness remaining for a considerable time.

In the *atonic gout*, if the head be affected, there is great pain there, with perhaps giddiness; and not unfrequently apoplectic and paralytic affections are the consequence. If the lungs, it produces an affection similar to asthma. If the heart, faintings, palpitations, and an intermittent pulse. If it is seated in the stomach, there is great pain, nausea, vomiting flatulency, and eructations, dejection of mind, languor, want of energy, and apprehension of danger; and these are frequently accompanied with cramps in several parts of the trunk of the body and upper extremities. Sometimes there is obstinate costiveness; sometimes a purging.

In the *retrocedent gout*, if the disease is translated to the stomach, there is great anxiety, violent pain, and vomiting, with a peculiar sense of cold over the region of this organ. If to the heart, there are faintings and palpitations. If to the lungs, asthma. If to the head, apoplexy and palsy.

In *misplaced gout*, instead of there being an inflammatory affection of the joints, the disease attacks some internal part, produces inflammation there, and then we meet with the symptoms specified.

Attacks of gout usually become more severe during each returning fit, both as to the degree of pain as well as the number of parts which are affected. Probably it only seizes one foot at first, but afterward both feet are affected by every paroxysm, the one after the other; and as the disease advances it not only affects both feet at once, but, after having ceased in the foot which was secondly attacked, again returns to the first, and perhaps a second time into the other. Sometimes it shifts its seat from the feet into the other joints of the upper and lower extremities; and in severe cases there is scarcely a joint of the body that does not in its turn feel its effects. Although two joints may be affected at the same time, yet it generally happens that the attack is only severe in one, passing successively from one to another, so that the sufferings of the patient are frequently prolonged to a considerable length of time.

At first a gouty attack occurs probably only once in two or three years; it then comes on every year, till at length it becomes very frequent, and is not only of longer duration, but much severer each succeeding fit. After repeated attacks the joints lose their flexibility and strength, and become so stiff as essentially to interfere with their performing their accustomed motions. On the joints of the fingers little hard swellings or small nodes arise, chalky concretions and sores are formed, and both the kidneys and bladder occasionally become affected with small stones of a similar nature. Gout usually attacks the small joints, and rheumatism the large ones.

TREATMENT.

Cold Water.—Cold water has been highly recommended in gout. Hippocrates says that cold water, freely poured upon gouty swellings of the joints, allays the pain, by producing a moderate degree of numbness.

In one particular, says an author, Dr. Good is rather singular in his practice; it is in the use of cold water externally applied. He speaks from a trial of several years upon his own person, and is anxious that others should participate in what has proved so decisive a comfort to himself. In the height of a paroxysm of pain he stripped off the flannel and boldly plunged his foot into cold water for four or five times in succession. The application was peculiarly refreshing; the fiery heat and pain, and all the inflammatory symptoms, diminished instantly; he repeated the cold bathing two hours afterward, and continued to do so through the whole of the day; the complaint gradually diminishing upon every repetition, and in twenty-four hours the fit completely disappeared, and he was capable of resuming his accustomed exercise of walking. For five or six years afterward, in his annual attacks he always had immediate recourse to cold immersion or affusion. A handful of salt may be added to the water.

The vapour bath may likewise be used.

In case the toe, foot, hand, or any other part is much swelled or painful, apply a poultice made by simmering *bran* and *vinegar* together till a poultice of suitable consistence is formed: apply tepid.

Should this fail to give relief, take equal parts of *cicuta*, *stramonium leaves*, or *leaves of henbane*, simmer in good vinegar until soft, then add a sufficient quantity of *slippery elm bark*, pulverized, to form a poultice: apply blood-warm; renew before it becomes dry.

This will be found an excellent application when other appropriate means have been used. One or more of the plants may be used.

The following means have been advised in the forming stage of the disease, in order to moderate or prevent the paroxysm. Emetics, (Chalmers;) active cathartics, (Musgrave;) vegetable bitters, iron, (Grant;) Dover's powder, opium, (Fothergill;) large doses of musk or castor, (Williams;) gratiola, (Wolff;) bleeding from the foot, (Gilbert;) the application of very cold water to the feet, (Giannini;) the internal use of iced water, (Barthez;) &c.

The following liniment may be applied to the swelling: Take oil of hemlock and spirits of turpentine, one ounce; gum camphor, one ounce; alcohol, one quart; mix: apply warm.

Should the pain, swelling, and heat be great, the foot or part affected may be steamed over *bitter herbs*. This generally affords the most sudden and permanent relief. The *diaphoretic powders* may be taken.

If the foregoing treatment does not cure the complaint, the *Botanical drops*

may be given, two tea-spoonsful four times a day in a tumbler of *prickly-ash* tea, made either of the bark or berries.

Poultices.—If the parts are very painful, let a poultice be applied made by simmering together *elm bark* and *vinegar*.

A portion of physic should be occasionally taken, and a course of alterative medicine, as directed under the head of rheumatism.

Says the experienced Dr. Heberden: "The most perfect cures of which I have been a witness have been effected by a total abstinence from *spirits*, *wine*, and *flesh*, which hath restored the helpless and miserable patients from a state worse than death, to active and comfortable life. The great Dr. Harvey, as I have been told by some of his relations, upon the first approach of gout in his foot, would instantly put it off by plunging the leg into a pail of cold water." Sea bathing is excellent, and exercise important. If it strikes to the stomach, give the *anodyne powders*, and excite perspiration. The *wine tincture of colchicum* has been highly recommended.

REGIMEN.

In the fit, if the patient be young and strong, his diet ought to be thin and cooling and his drink of a diluting nature; but where the constitution is weak, and the patient has been accustomed to live high, this is not a proper time to retrench. In this case he must keep nearly to his usual diet. Wine whey is a very proper drink in this case, as it promotes the perspiration without greatly heating the patient. It is well known that the whole habit may be so altered by a proper regimen as quite to eradicate this disease; and those only who have sufficient resolution to persist in such a course have reason to expect a cure.

The course which we would recommend for preventing the gout is as follows: In the first place, *universal temperance*. In the next place, *sufficient exercise*—labour, sweat, and toil. These only can expel the morbid humours. Going early to bed and rising early are also of great importance. It is likewise proper to avoid night studies and intense thinking. The supper should be light and taken early. The use of milk, gradually increased till it becomes the principal part of diet, is particularly recommended. All strong and fermented liquors, especially wines and punch, are to be avoided.

ERUPTIVE DISEASES.

CLASS III.

CHARACTER.

Most of this class of diseases are characterized by fever, nausea, or vomiting, and at a particular time numerous and small eruptions appear on the skin or surface of the body. Also, most of the diseases of this class are contagious, and attack a person only once in life.

All the symptoms exhibited show conclusively that the pathology of fever, as advocated in this work, is strictly correct. While the contagious matter is in the circulation all the phenomena of fever are observed; but as soon as the exciting cause, the eruptions, are thrown to the surface, the fever subsides,

and reappears when such humours or eruptions are absorbed, showing in the plainest possible manner the nature and cause of fever.

CHAPTER I.

SMALL-POX. (*Variola.*)

DESCRIPTION.

Small-pox is a disease of a very contagious nature, marked by a fever which is usually inflammatory, but now and then is of a typhoid nature, attended with vomiting, and, upon pressure of the stomach, with pain; succeeded after a few days by an eruption of red pimples on different parts of the body, which in the course of time suppurate and scab, and at length fall off, leaving frequently behind them little pits in the skin, and, in severe cases, scars.

It has been estimated that, before the introduction of vaccination, 450,000 individuals died annually of small-pox in Europe.

CAUSES.

Both the distinct and confluent small-pox are produced either by breathing air impregnated with the effluvia arising from the bodies of those who labour under the disease, or by the introduction of a small quantity of variolous matter into the habit by inoculation; and it is probable that the variety of the small-pox is not owing to any difference in the contagion, but depends on the state of the person to whom it is applied, or on certain circumstances concurring with the application of it. On or after the sixth day the infection is communicated to another. The period during which infection remains latent in the body is from the fifth day to the sixteenth, seventeenth, and even the twenty-third. The disease may be communicated from the mother to the child. In some cases the body of the child at its birth has been covered with pustules, and the nature of the disease has been most satisfactorily ascertained by inoculating with matter taken from these pustules. In other cases there has been no appearance of the disease at the time of the birth.

SYMPTOMS.

Of this disease there are two species, the *distinct* and *confluent*. In the *distinct small-pox* the disease begins with an inflammatory fever. It generally comes on with some symptoms of a cold stage, and commonly with a considerable langour and drowsiness. A hot stage is soon formed, and becomes more considerable on the second and third days. During this course children are liable to frequent startings from their slumbers; and adults, if they are kept in bed, are disposed to much sweating. On the third day children are sometimes affected with one or two epileptic fits. Toward the end of the third day the eruption commonly appears, and gradually increases during the fourth; appearing first on the face, and successively on the inferior parts, so as to be completed over the whole body on the fifth day. From the third day the fever abates, and by the fifth it entirely ceases.

The eruption appears at first in small red spots, hardly prominent, but by degrees rising into pimples. There are generally but few on the face; but

even when more numerous they are separate and distinct from one another On the fifth or sixth day a small vesicle or bladder, containing an almost colourless fluid, appears on the top of each pimple: for two days these vesicles increase in breadth only, and there is a small pit in their middle, so that they are not raised to globular pustules or eruptions till the eighth day. These pustules, from their first formation, continue to be surrounded with a circular inflamed margin, which, when they are numerous, diffuses some inflammation over the neighbouring skin, so as to give somewhat of a damask-rose colour to the spaces between the pustules.

As the pustules increase in size the face swells considerably, if they are numerous on it; and the eyelids particularly are so much swelled that the eyes are entirely shut. As the disease proceeds the matter in the pustules becomes by degrees, first more opaque or cloudy, then white, and at length assumes a yellowish colour. On the eleventh day the swelling of the face is abated, and the pustules seem quite full. On the top of each a darker spot appears; and at this place the pustule on the eleventh day, or soon after, is spontaneously broken, and a portion of the matter oozes out, in consequence of which the pustule is shrivelled and subsides; while the matter oozing out dries and forms a crust upon its surface. Sometimes only a little of the matter issues out, and what remains in the pustules becomes thick and even hard. After some days both the crusts and the hardened pustules fall off, leaving the skin which they covered of a brownish red colour; nor does it resume its natural colour till many days after. In some cases, where the matter of the pustules has been more liquid, the crusts formed by it are later in falling off.

On the legs and hands the matter is frequently absorbed; so that at the height of the disease these pustules appear empty. On the tenth and eleventh days, as the swelling of the face subsides, a swelling arises in the hands and feet; but which again subsides as the pustules come to maturity. When the pustules are numerous on the face upon the sixth or seventh day, some uneasiness in the throat, with a hoarseness in the voice, comes on, and a thin liquid is poured out from the mouth. These symptoms increase with the swelling of the face; and the liquids of the mouth and throat, becoming thicker, are with difficulty thrown out; and there is at the same time some difficulty in swallowing, so that liquids taken into the mouth are frequently rejected or thrown out by the nose. But all these affections are abated as the swelling of the face subsides.

The more exactly the disease retains the form of the distinct kind, it is the safer; and the more completely the disease takes the form of the confluent kind, it is the more dangerous. It is only when the distinct kind shows a great number of pustules on the face, or otherwise, by fever or putrescency, approaching to the circumstances of the confluent, that the distinct kind is attended with any danger.

There is not much danger in the mild distinct *small-pox*, except when the patient is extremely loaded, especially about the head and throat. This disease sometimes lays the foundation of consumption and obstinate inflammation of the eyes, and frequently, by removing complaints that existed before, it improves the health and constitution.

Confluent Species.—In the *confluent small-pox* all the symptoms abovementioned are much more severe. The eruptive fever particularly is more violent, the pulse is more frequent and more contracted. The drowsiness is more considerable, and there is frequently a delirium. Vomiting also generally attends, especially at the beginning of the disease. In very young

infants epileptic fits are sometimes frequent on the first days of the disease, and sometimes prove fatal before any eruption appears; or they usher in a very confluent and putrid small-pox. The eruption appears more clearly on the third day, and sometimes in clusters like the measles.

In the *confluent species* of small-pox the vesicles or eruptions all flow or run together, and the whole face and other parts assume a black or crusty appearance. The effluvia is very offensive; and I have seen worms or maggots crawling in the flesh, and yet the patient has recovered. This disease generally terminates favourably under proper treatment, except where the subject of it is intemperate, in which case it proves very dangerous or fatal.

In this kind of small-pox there is often a very considerable putrescency of the fluids, as appears from petechiæ, serous, or watery vesicles, under which the skin shows a disposition to gangrene or mortification, and form bloody urine or other hæmorrhages; all which symptoms frequently attend this disease. In the confluent small-pox also the fever, which had only suffered a remission from the eruption to the maturation, at or immediately after this period, is frequently renewed again with considerable violence. This is what has been called the *secondary fever*, and is of various duration and event.

In the confluent kind the danger is always very considerable; and the more violent and permanent the fever is, the greater the danger; and especially in proportion to the increase of the symptoms of putrescency. When the putrid disposition is very great, the disease sometimes proves fatal before the eighth day; but in most cases death happens on the eleventh, and sometimes not till the fourteenth or seventeenth day. Though the small-pox may not prove immediately fatal, the more violent kinds are often followed by a morbid state of the body, sometimes of very dangerous event.

TREATMENT.

Indications of Care.—The object of the physician in this disease, as ought to be in every other, should be, to aid the salutary efforts of nature in eliminating or expelling the morbific or variolous poison.

1. If the powers of nature are insufficient to expel it, such medicine must be given as will produce this effect.

2. If, on the other hand, there is too great an excitement in the system, or too much fever, it must be moderated.

3. Counteract a tendency to putrescency.

When called in the commencement of small-pox, it will be found necessary to treat it in a considerable degree on general principles, having in view at the same time particular symptoms, such as vomiting. For such is the similarity between *eruptive* and *febrile* diseases, that it is sometimes difficult to discriminate between them; and if the symptoms are ever so well marked, a very similar course of treatment is called for in both complaints. Should vomiting be predominant, such medicine must be given as will allay the irritability of the stomach; and the best for this will be the *bicarbonate of potash, or sal æratus*, given as has previously been directed, to be accompanied with an infusion or tea of *spearmint*. When this is allayed, administer a *purgative*. After the stomach and bowels have been cleansed, attention must be directed to the skin; such medicine must be given as will produce gentle, not profuse, perspiration. This must be kept up moderately throughout the whole course of the disease.

The following infusion may be given: Take of saffron and catnip, equal

parts: make a tea and give it warm. This will soon produce a moisture of the skin, and assist nature to expel the eruptions.

It will be indispensably necessary to immerse the feet in warm *ley water*, to be repeated once or twice daily.

The surface must be entirely bathed with the same liquid, and repeated as often.

Should the reaction or febrile excitement be too great, it must be moderated by attention to all the secretions and excretions. Purgatives and sudorifics are the principal class of medicines to fulfil this indication. Should the heat be great, let the body be bathed with warm water, notwithstanding the eruptions. Attention must be paid to particular symptoms, such as pains in the head, delirium, sore throat, &c. For pain in the head, in addition to bathing the feet, which alone is often sufficient to remove it, let a *mustard poultice* or *plaster* be applied to the bottom of the feet. The head may likewise be bathed with equal parts of *rain water*, *spirits*, and *vinegar*, and applied tepid.

For soreness of the throat, and accumulation of mucus and phlegm in the bronchial vessels, give one or two tea-spoonsful of the *expectorant tincture*, to be repeated occasionally. The throat may also be gargled with a decoction of equal parts of *sage* and *hyssop*, *sweetened with honey, and a little borax added.*

When there is a great tendency to putrescency in the fluids, give a wine glass of *yeast* three or four times a day.

Sometimes there is a sinking or great prostration of strength; when this is the case, *wine whey* may be given, and *buttermilk*, moderately acid; also *quinine* or *Peruvian bark.*

During the complaint there is great restlessness or pain, want of sleep, &c. For such symptoms, as well as to keep up a determination to the surface, without increasing the heat of the body, give ten grains of the *diaphoretic powders*, and particularly at bed-time; at the same time a weak infusion of the *Virginia snake-root* may be given.

In consequence of debility, it is sometimes the case that the vesicles or eruptions are flabby or not well filled, showing evidently that the variolous matter is retained in the system. Under such circumstances a more stimulating course of treatment must be pursued.

A tea-spoonful of the sweating drops must be given in half a pint of *catnip tea;* and after giving this, should not the pox become fuller and more healthy, give *milk punch*, to be continued until an improvement is perceptible.

When the eruptions suddenly subside, or, as it is familiarly expressed, *strike in*—or, in other words, when there is a recession of them before they have arrived at maturity—the danger is very great. Should such symptoms occur, the same treatment as last mentioned must be promptly and rigidly pursued; in addition to which a tea made of equal parts of *saffron* and *snake-root* may be freely given.

The most dangerous period of the small-pox is when a *secondary fever* appears, which generally commences when the disease begins to blacken or turn. Most of those who fall victims to the small-pox are carried off by this fever, and often, it appears to me, for the want of proper treatment.

Nature often attempts at the turn of the small-pox to relieve the patient by diarrhœa; and did physicians take this hint, they would know what to prescribe. We learn from this fact that the secondary fever arises from the absorption of the variolous matter, and that there would be little or none were nature properly aided in her attempts to carry off the complaint. Therefore her kind endeavours must be promoted. When the eruptions are

thrown to the surface and the disease begins to turn, the patient must be freely *purged;* whereas, previous to this period, a *cathartic occasionally* administered is sufficient

Our *common physic* is the best preparation that can be given in both species

Sometimes infants are affected with convulsions before the eruptions appear There is no occasion for alarm in this case. All that is necessary to be done is, to *bathe the feet in warm water*, and *give warm diluent drinks*, such as *balm*, *mint*, or *catnip tea*, &c.

This treatment is designed for both the *distinct* and *confluent* species The only difference in the treatment is, that in the latter a more active course of treatment is called for

REGIMEN

During the eruptive fever the patient must be kept cool and easy, and weak diluting infusions given, such as *mint*, *balm*, and *catnip tea;* and if the patient is very thirsty and the eruption well out, give also *lemonade*, *currant jelly*, and *toast water.*

His nourishment should be *barley water*, *Indian meal gruel*, *buttermilk* and *water*, *roasted apples*, *ripe fruit*, and particularly *mush* or *hasty pudding* There should be a current of air in the room, but must not be suffered to come in direct contact with the patient. The temperature of the room should be uniform, neither too hot nor too cold. Great attention ought to be paid to cleanliness. As soon as anything passes the bowels it should be immediately removed, and vinegar thrown upon a heated brick or other substances. The linen and clothes should be often changed, and all noise and confusion, as far as possible, prevented.

Various means have been recommended to prevent the pitting which attends the small-pox; such as opening the pustules, and the application of lunar caustic; but it is very questionable whether any benefit arises from this practice, or any other of a similar nature.

Nothing is better to diminish the inflammation and pitting of the face, as well as to mitigate the inflammation of the eyes, than a poultice made of the superfine flour of the *slippery elm.* The eruptions, if very large and full of matter, attended with great irritation, may be punctured, the fluid let out, and sprinkled with the dry flour of *slippery elm.*

The above treatment I have found invariably successful in small-pox, never having lost a single case where I have been called in any reasonable time. It carries the patient safely and shortly through the worst species of the disease, while the course pursued by physicians generally, such as bleeding, mercury, and cold applications, is attended with the most distressing or fatal effects.

CHAPTER II.

COW-POX, OR VACCINE DISEASE (*Vaccina.*)

It has been demonstrated that the cow-pox or vaccination is in most cases an antidote against the small-pox. It either prevents it entirely, or modifies the violence of it. When this does not prove to be the case, it is

to be presumed the vaccine matter has not been genuine, or has not been taken at a proper period; in all cases where a *scar* or mark remains after vaccination, it may be considered a proof that the matter has made the desired impression on the system. It is prudent, however, to vaccinate again with cow or small-pox; and it will generally be found, if the first has been genuine, that the pustule forms imperfectly or is *spurious*. Some have supposed that after a term of years cow-pox loses its efficacy, and the system again becomes liable to the small-pox; but there is no satisfactory evidence of this.

The following circumstances are deserving of attention in inoculating for the cow-pox, and substituting this mild and safe disease for that dangerous and pestilential one, the small-pox.

1. That the matter with which we inoculate be not taken later in the disease than the ninth day, and from a healthy person.

2. That the fluid be perfectly transparent, as it is not to be depended upon when it has in any degree become opaque.

3. That the matter taken should be allowed to dry gradually and thoroughly before it is laid by for use, when not employed immediately or in its fluid state.

4. That the punctures with the besmeared lancet or powdered scab, which lasts any length of time, be done as superficially as possible, and only one be made in the same arm.

Here it may not be improper to remark, that the inoculation for this disease will not be likely to succeed well if there be any herpetic eruption on the skin If the inflammation of the arm be very great, apply a *slippery elm* poultice.

In many instances, as has been already stated, vaccination protects the system *completely* against infection from small-pox contagion. In other cases the system is only partially freed from liability to variolous infection.

CHAPTER III.

CHICKEN AND SWINE-POX.

DESCRIPTION.

These diseases are the same, and differ only in name.

SYMPTOMS.

The eruptions make their appearance, in many instances, without any previous illness; in others they are preceded by a slight degree of chilliness, lassitude, cough, interrupted sleep, wandering pains, loss of appetite, and a febrile disposition for three or four days. Most of the eruptions are of the common size of those of the small-pox, but they are not numerous nor confluent. On the first day they are red, and much resemble in their appearance the small-pox. On the second day the red pimples have become small vesicles, containing a colourless fluid, but sometimes a yellowish liquor. On the third the pustules arrive at full maturity, and in some instances so much resemble the small-pox as to be distinguished with difficulty. When the little bladder is broken by accident or rubbing, as sometimes happens on the first or second day, there forms a thin scab, and the swelling of the other part abates without its ever being converted into proper matter, as it is in the small-pox. The few which escape being burst have the little drop of

fluid contained in the vesicle at the top of them, turn yellow and thick, and it dries into a scab. On the fifth day of the eruption the pustules are almost dried and covered with a slight crust, but no mark is left behind when this falls off.

TREATMENT AND REGIMEN.

The complaint is usually of so trivial a nature as seldom to require the aid of medicine; but should the febrile symptoms run high previous to the appearance of the eruption, or after it has shown itself, it may be advisable to give the patient some cooling medicine from time to time; drinking plentifully of herb teas, and keeping the bowels open, if necessary, by some gentle aperient medicine.

After the disappearance of the eruption, one or two doses of any mild purgative may be administered, with an interval of three or four days between each.

CHAPTER IV.

MEASLES. (*Rubeola.*)

DESCRIPTION.

The measles are known by the appearance of small eruptions, somewhat resembling flea-bites, over the face and body, but particularly about the neck and breast, not tending to suppuration. Many of these spots soon run into each other, and form red streaks or suffusions, larger or smaller, which give the skin an inflammatory appearance, and produce a perceptible swelling of the face; each spot is raised a little above the surface, especially on the face, where they are manifest to the touch; on the limbs and trunk they form only a roughness.

The disease is highly infectious; often prevails epidemically, however; and the constitution that has been once under its influence is seldom liable to a second attack. It only happens when the person has at first had a very mild or spurious species of measles. It appears ten or fourteen days after the infection.

CAUSES.

Specific infection or contagious matter received into the constitution. Children are more liable to the measles than grown people, and the winter is the season of the year when the disease prevails.

SYMPTOMS.

The eruption in grown persons is usually preceded by a general uneasiness, chilliness, shivering, and pain in the head; but in children a heaviness and soreness of the throat, sickness, and vomiting, as in most fevers; but the principal symptoms are, a heaviness about the eyes, with swelling, inflammation, and a secretion of sharp tears, and great acuteness of sensation, so

that they cannot bear the light without pain, together with a discharge of such serous humour from the nostrils which produces sneezing. The heat and other febrile symptoms increase very rapidly; to which succeed a frequent and dry cough, a stuffing, great oppression, and oftentimes retching to vomit, with violent pains in the loins, and sometimes a looseness; at other times there is great sweating, the tongue foul and white, the thirst very great, and, in general, the fever runs much higher than in the milder sort of the regular small-pox. The eruptions appear about the fourth or fifth day, and sometimes at the end of the third. On the third or fourth day from their first appearance the redness diminishes, the spots dry up, the skin peels off, and is replaced by a new one. The symptoms do not disappear on the eruption, as in small-pox, except the vomiting; the cough and headache continue, with the weakness and defluxion of the eyes, and a considerable degree of fever. On the ninth or eleventh day no trace of redness is to be found, but the skin assumes its natural appearance; yet, unless there have been some considerable evacuations, either by the skin or by vomiting, the patient will hardly recover strength; but the cough will continue, the fever return with renewed vigour, and bring on great distress and danger.

In the more alarming cases spasms of the limbs, lethargy, delirium, or, what more frequently happens, twitching of the tendons, supervene.

In measles, as in other febrile diseases, the symptoms generally suffer some remission toward the morning, returning, however, toward the evening with increased severity.

The measles, when violent, are not usually attended with a putrid tendency; but it sometimes occurs that such a disposition prevails both in the course of the disease and at its termination; in such cases livid or black spots are to be observed interspersed among the eruptions, and these last become livid, or assume almost a black colour. Hæmorrhages break out from different parts of the body, the pulse becomes frequent, feeble, and perhaps irregular, universal debility ensues, and the patient is destroyed.

TREATMENT.

Indications of Cure.—1. It is our duty in this disease, as well as in small-pox, to assist nature in expelling the eruption, if her efforts be too feeble; and when they are too violent, they must be moderated by suitable evacuations.

2. The attention must be directed to urgent and particular symptoms, such as cough, restlessness, difficulty of breathing, &c.

The greatest danger in the treatment of measles, as well as in most other diseases, consists in doing too much by improper and untimely interference, and thus taking the business out of the hands of nature, and trusting it to the danger and uncertainty of art. The measles being usually attended with great inflammation, it is often the first business of the physician to moderate it; to effect which, the same means must be pursued as recommended under the head of small-pox. The first step to be taken will be, to immerse the feet in warm ley water, and bathe the surface with the same once or twice a day, according to the urgency of the symptoms, until the eruptions appear: this will relieve the head and facilitate the appearance of the eruptions.

The following infusion should be given as early as possible: Take saffron, two parts; Virginia snake-root, one part; make a tea, sweeten, and give warm; to be repeated, and as much drank as the stomach will bear.

This infusion, with the means recommended above will lessen the distress-

ing and urgent symptoms attendant on the forming stage, by diminishing excessive inflammation, as well as aiding the expulsion of the eruptions.

If, from debility, cold, or any other cause, the eruptions should only partially appear—or, after their appearance, should there be a recession of them—in addition to these means give *sudorific drops* or *diaphoretic powders*, warm milk punch, &c.; and should not this be sufficient, use the *warm bath*.

When they have made their appearance on the surface, and assume a healthy appearance, very little medicine is necessary. In this complaint the eyes are generally very much affected; when this is the case they may be washed with the mucilage of *slippery elm bark* and *borax water*.

There are also pulmonary symptoms in measles, which prove very distressing to the patient. When there is difficulty of respiration, from the accumulation of mucus, give a dose of the *expectorant tincture*, sufficient to dislodge it, to be repeated on the return of the symptoms; in addition to which a tea of catnip and hoarhound may be given.

Should the pain of the head be very great, with delirium or convulsions, continue to bathe the feet often, and apply the *mustard paste* to them.

There is usually considerable febrile excitement, restlessness, and pain For these symptoms, as well as to keep up a continual moisture of the skin, give a dose (according to the age of the person) of the *diaphoretic powders* every night at bed-time.

Should nausea or vomiting prevail, let *mint* tea and *bicarbonate of potash* be given.

It is of the greatest importance in measles to attend to the bowels. In the first stages of this disease a purgative should be given, and repeated according to the violence of the disease and inflammation. If the excitement is very great, a moderate dose of physic may be given every day—but in general every two or three days will be sufficient—till the eruptions have fully appeared, when it may be necessary to repeat them oftener, in order to prevent any morbific matter which may have been retained in the system from being thrown upon some organ, and thus causing subsequent diseases, such as inflammation of the eyes, dropsy, consumption, &c. The following purgative, under these circumstances, may be given: Take best senna and manna, a large tea-spoonful of each; add half a pint of boiling water; when cool strain it, and add a tea-spoonful of *cream of tartar;* sweeten. For a child two years old give a large table-spoonful every two hours until it acts upon the bowels: this purgative may be occasionally repeated.

Should any disease remain after the measles have disappeared, let it be treated the same as if arising from other causes. If great debility of the system should take place, denoting a tendency to putrescency, give *yeast*, mixed with a little milk and molasses, three or four times a day; give also wine sling or sangoree, warm, with plenty of nutmeg grated into it.

Should there be looseness, treat it as laid down under the head of that complaint.

REGIMEN.

Panado, gruel, ripe fruits, currant jelly, &c., may be taken. The patient may drink barley, toast water, buttermilk whey, &c. The room should be well ventilated, clean, and of a moderate temperature, and the clothes often changed. Patients recovering from the measles should be careful about their diet; their food for some time ought to be light, and in small quantities.

This treatment will carry the patient safely through the disease; while the opposite course, bleeding, mercury, &c., will cause such debility or putrescency in the fluids as to protract the complaint, harass and distress the patient, if not prove fatal.

DROPSICAL DISEASES.

CLASS IV.

CHARACTER.

In this class of diseases there is a preternatural or morbid collection, consisting of a serous fluid in the cellular membrane in the organs, and the circumscribed cavities of the body, impeding or preventing the functions of life. This accumulation receives different names, according to the particular parts in which it is lodged. When it is deposited in the cranium or brain, it is called *hydrocephalus;* when it is deposited in the chest, it is called *hydrothorax;* when in the cavity or the abdomen, it is denominated *ascites;* when in the scrotum, *hydrocele;* when in the ovarium, *ascites ovarii;* when in the uterus, *hydrometra;* when it is diffused through the cellular membrane, it is called *anasarca.*

Diminished absorption and increased effusion, or both united, may be considered as the proximate cause of the different species of dropsy.

CHAPTER I.

DROPSY OF THE HEAD OR BRAIN. (*Hydrocephalus.*)

DESCRIPTION.

By dropsy of the head we understand a collection of water either between the membranes of the brain or in the ventricles. It is divided into two species, *internal* and *external.* *Internal*, when the fluid is collected within the ventricles of the brain; *external*, when it is collected between the membranes of the brain. In this latter case it is usually of a chronic nature, and water has been known to increase to an enormous quantity, swelling the head to a prodigious size; widely separating the bones of the head, and sometimes causing an absorption of the brain.

Pain in the head, particularly across the brow, stupor, dilatation of the pupils, nausea, vomiting, preternatural slowness of the pulse, and convulsions are the symptoms of this disease.

Dropsy of the head is almost peculiar to children, being rarely known to extend beyond the age of twelve or fourteen; and it seems more frequently to arise in those of a scrofulous habit than in others. It is a complaint which has been observed to pervade families, affecting all, or the greater part, of the children at a certain period of their life; which seems to show that in many cases it depends more on the general habit than on any local affection or accidental cause.

CAUSES.

The immediate cause of every kind of dropsy is such a state of the parts as makes the exhalent arteries throw out a greater quantity of fluids than the absorbents can take up, which causes an overflow or collection of serum or water in the cavities of the body: this state consists in debility.

The dropsy of the head is, in some instances, the consequence of congestion or slight inflammation of the brain, or general debility.

A morbid state of the stomach and bowels has been supposed by some to be a predisposing cause; but of all the causes which contribute to the production of this disease, cold plays the most conspicuous part.

SYMPTOMS.

The symptoms are those which more unequivocally direct attention to the head as the seat of disease. They are, headache, sometimes diffused, sometimes referred to a particular spot; impatience of light and noise, a flushed countenance, preternatural redness of the eyes, contracted pupil, tossing the arms to the head, and occasionally screaming or shrieking without any obvious cause. With these are joined the common symptoms of infantile fever, and they denote acute inflammatory action of the vessels of the brain.

As the disease progresses, the pulse, before quick, becomes slow, intermitting, or irregular; the pupils are permanently dilated, and cease to contract on the approach of light. There is squinting. Instead of being restless, and tossing about his arms, the child falls into a state of stupor, and is insensible to things and persons around him. The screaming fits occur more frequently, and there is an almost constant moaning. The child will often vomit on being brought into an erect posture. Any sudden exertion brings on a fit or convulsion, in which the child dies.

If the child survives this stage, it is occasionally found that after a time the pulse again rises, so as to beat 150 or more in a minute, and is withal small and feeble. The child lies perfectly insensible, and takes nourishment from actual inability to swallow. The stools and urine pass involuntarily; the face is pale; the tongue dry and brown; convulsions or partial paralysis occur; occasionally one side becomes perfectly paralytic. Severe inflammation of the eyes is sometimes witnessed. The immediate approach of death is often preceded by gangrenous spots, appearing particularly about the neck, hips, or tips of the ears.

The first stage is sometimes wanting, the attack being sudden, and perhaps the first evidence of the disease a strong convulsive fit. In many instances the pulse never becomes slow. Occasionally there is neither permanent contraction nor dilatation of the pupil. The pupil of the eye dilates on the approach of the candle, and contracts as it recedes. In a few cases children continue sensible to the last moment. Aberration of intellect can scarcely be said to occur in this, nor indeed in any of the diseases of early life.

The duration of the complaint is liable to almost as much variation as the symptoms which characterize it. It has been known to prove fatal in a week; some cases run on even as long as two months, but these are comparatively rare. The average duration of the complaint may be stated to be three weeks.

The extremities are cold, showing a determination to the head, or an unequal circulation; and in some cases there is costiveness in the commencement of the complaint. There is in others, particularly when the attack is

very violent, free purging. There is also generally great heat or inflammation of the head, and this may be the principal cause of the disease.

The commencement of the disease is often very mild; but the symptoms which strongly characterize a collection of water in or on the brain, and distinguish it from other diseases, are, the heat and excruciating pain in the head, an intolerance of light, followed by squinting, throwing the head back and the arms to the head, dilated pupils, and profound stupor and vomiting. At first the pulse is very quick, afterward slow and irregular; fever and urine scanty; sometimes the first symptom of illness is sudden puking and purging, in which case it generally proves fatal suddenly.

SECTION I.

CHRONIC FORM OF THE DISEASE.

Sometimes this disease is congenital, but more usually it begins during the first month. In consequence of the bones of the cranium giving way, the usual symptoms of compression do not come on. The size which the head attains in this disease is often enormous. In the progress of the disease the functions of the body generally are very little, often not at all, impaired till a short time before death. It is almost incredible how little the powers of the mind are affected by this disorder. Dr. Monro states, that in no instance seen by him could it be said that the intellect was deranged. In one remarkable case, of twenty-six years' duration, in which the head measured forty-four inches in circumference, the patient displayed a very affectionate disposition toward his parents, entered into the amusements of his brothers and sisters, and enjoyed a tolerably retentive memory. Attempts have been made to afford relief to this apparently hopeless state of disease by tapping: more recent observations have shown that the risk from this operation is great, and that it is not generally to be recommended. Very little can be done in this form of the disease.

TREATMENT.

Indications of Cure.—1. The indication of cure in this disease is, to lessen the inflammatory action, by equalizing the circulation, and thus preventing a serous effusion.

2. When water has been collected, to evacuate it through the medium of the absorbents, by stimulating them to a healthy action.

From the nature of this complaint it is evident that it becomes more difficult to remove than most of others. By prompt and suitable measures it may often be successfully treated.

When the disease is marked by inflammation, the first steps to be taken are, to use such means as are calculated to subdue it. General bleeding is resorted to by physicians usually; but with what propriety I am unable to determine. It may exasperate or irritate the disease, but can never effect a cure.

The usual effect of blood-letting, viz., that of debility or prostration, is sensibly experienced in hydrocephalus, and that, too, without at all lessening arterial action.

To reduce the inflammation, our reliance must be placed upon more appro-

priate means; and such, in general, must be resorted to as have been laid down under the head of other inflammatory complaints, in order to divert the blood from the head, and recall it to the extremities and the surface. Let the feet and legs be immersed in warm *ley water*, and rubbed with flannel or muslin. Bathe the surface with the same; both of which processes must be often repeated, or according to the urgency of the symptoms.

Great reliance in the treatment of this disease must be placed upon *purgatives;* and such as act equally through the whole alimentary canal. Our common purgative, combined with *cream of tartar*, answers well for this purpose. About equal parts of the two articles may be combined, and given in any suitable vehicle.

It is difficult to lay down any precise rule for the repetition of purgatives, as this depends upon the violence of the disease, constitution, &c.; but, as a general rule in severe attacks, they may be given daily, and in protracted cases every two or three days. In most cases immediate amendment follows their administration, either when there is inflammation or serous effusion.

It is indispensably necessary in this, as in most other diseases, to pay strict attention to the capillary system. Such medicines must be given, and such means taken, as are calculated to promote *perspiration*. In addition to bathing the feet and surface, mentioned above, *sudorific* medicines may be given. For this purpose give the *sudorific* or *sweating drops* in doses according to the age of the child, to be accompanied with free use of the infusion of *spearmint*, (mentha sativa;) the same tea or infusion to be given when the child is thirsty. This plant has a threefold effect upon the system; *First*, it allays the irritability of the stomach; *Second*, it promotes gentle perspiration; *Third*, it promotes a preternatural discharge of urine.

Should the sweating drops prove too stimulating, and thus increase the febrile excitement, substitute the *diaphoretic powders;* and give particularly at night, to allay irritation, procure rest, promote perspiration, &c.

Should all these means fail of producing perspiration, which, from the dry and constricted state of the skin, may occasionally be the case, let the child be held in the arms of its mother or nurse, and a blanket thrown around it, and let both be placed over a tub containing a strong decoction of bitter herbs. The steam must be permitted gradually to come in contact with the body of the child; after which let it be wrapped in a blanket and placed in a bed or cradle. If benefit is experienced from this process, let it be repeated.

In almost every case of *hydrocephalus* there is great heat or inflammation of the head; and, therefore, it is necessary to apply refrigerant or cooling lotions or applications to it. Equal parts of *spirits*, *rain water*, and *vinegar*, to which a little *salt* has been added, may be often applied to the head, tepid. I have applied it cold and sometimes warm; and when I have ascertained which has afforded the most relief, I have continued it of the same temperature.

Should this only partially relieve, or should it lose its efficacy after frequent application, let it be omitted, and apply *hops*, simmered with *vinegar*, to the whole head. Great benefit is invariably experienced by these applications. The child, after great restlessness and pain, will generally fall asleep immediately on applying them. *Camphorated spirits* will also very good to apply.

In some cases, where the disease has been of an unusual obstinate character, resisting the ordinary remedies of this nature, I have applied, with

decided benefit, a poultice of *slippery elm bark* over the whole head, to be removed before it becomes dry.

Care must be taken, in making these applications, that there be not too speedy an evaporation. The head must be covered with a cap or handkerchief.

I have administered, and, as far as I have been able to ascertain, with great advantage, the plant of *fox glove* or *digitalis*. To one-half a tea-spoonful of the *dry herb* add one gill of boiling water; let it stand till cold. To a child one or two years of age give an ordinary tea-spoonful every two hours during the day, in a table-spoonful of *parsley tea;* it promotes a discharge of urine, and also allays irritation. *Purgatives* may be given in the morning, if necessary; and, if much pain, the *diaphoretic powders* at night.

Mustard plasters sufficiently strong to excite a little redness, must be kept to the feet; after which let them be applied between the shoulders, and thus changed alternately.

The great object in this complaint is, to subdue inflammation and promote absorption of the serum or water; to accomplish which, *purgatives* and *diuretics* are principally to be relied upon. *Emetics*, in some stages of the disease, might be given beneficially. Cases which appeared almost hopeless, have recovered under the treatment here laid down.

Cupping has been highly spoken of by some in this disease. A physician of this city became very celebrated, some years ago, for the cure of dropsy of the head, and his principal reliance was upon this operation. I have occasionally tried it in the worst or most desperate cases, but I am not clearly convinced how far it is beneficial. In one case which was given up as incurable, and one of the worst I ever saw, as a last alternative, I ordered the child to be cupped. It appeared to mitigate all the pain, the child fell asleep, and soon recovered. It might be resorted to, should all other means fail. The cups should be placed upon the temples and nape of the neck.

Dr. Vere, of this city, a skilful physician of the reformed school of medicine, states that he cured a case of dropsy of the head by giving a tea of the (*apocynum cannabinum*) *bitter root* or *milk weed* every two hours during the day, as much as the stomach would bear. It acted as a *diuretic* and *laxative*, and caused nausea.

The head was fomented with the following until the pain abated: Take of wormwood, two ounces; mullein and hops, two ounces each; stramonium, one ounce; mix, and add water and vinegar; after which the saline wash, with the addition of tincture of *stramonium*, was freely used four or five times a day.

At first one dose of *anti-bilious physic* was given; after which, to change the secretions, the *neutralizing mixture* was administered.

Whenever fever was present the child was bathed with the ley water, and sinapisms of garlic applied to the feet; the latter always when there was pain in the head.

There were some pneumonic symptoms present, for which equal parts of the wine tincture of *lobelia* and *ipecacuanha* were given. When fever was present, a tea made of amaranthus or crawley, eight parts, sweet spirits of nitre, one part, was administered. As a common drink throughout the disease, amaranthus, four ounces, and infused in boiling water, to which cream of tartar, half a drachm, was added.

The child was about four years of age, and by this treatment recovered in about three weeks.

REGIMEN.

It is very necessary that the room should be kept quiet and somewhat darkened. For nourishment give *arrow-root tea*, *milk*, *panado*, &c.

When nourishment cannot be taken by the mouth, it may be given by the way of injection. By this treatment we have cured many cases of this disease which appeared beyond the control of medicine.

CHAPTER II.

DROPSY OF THE ABDOMEN OR BELLY. (*Ascites.*)

DESCRIPTION.

By this species of dropsy we understand a collection of water in the cavity of the abdomen. The water is generally collected in the sac of the peritonæum or general cavity of the abdomen. Sometimes it is found without the peritonæum, and between this and the abdominal viscera. Sometimes the water is contained in sacs, and connected with some of the viscera. It is then called encysted dropsy.

CAUSES.

A preternatural collection of serous fluid, whether in the cellular membrane or in the cavities of the body, is caused by absorption falling short of exhalation in these cells and cavities; and this effect may be produced either by increased effusion from the exhalant arteries, or from diminished action of the absorbents. Absorption is increased, although not in proportion to the exhalation; and, therefore, the cause of dropsy is in the exhalant vessels, which pour out more serum or water than the absorbents take up, and thus collects and forms dropsy.

Increased effusion from the exhalants may arise,

1. From their relaxation, which may be occasioned by fevers, continued grief, excessive evacuations of any kind, the several species of intemperance, indolence and inactivity, or by drinking only stagnant or cold water when heated.

2. From superabundance of serum in the blood, which may be occasioned by the above-mentioned causes; by a penurious diet, profuse hæmorrhage and repeated bleeding, weakened powers of digestion, interruption of the watery excretions, jaundice, &c.

SYMPTOMS.

This variety of dropsy is often preceded by loss of appetite, sluggishness, dryness of the skin, oppression at the chest, cough, diminution of the natural discharge of urine, and costiveness. Shortly after the appearance of these symptoms an enlargement in the abdomen is perceived, which extends gradually, and keeps on increasing until the whole belly becomes at length uniformly swelled and tense. The distension varies according to the posture of the body, the weight being felt the most on that side on which the patient lies; while at the same time the distention becomes somewhat less on the opposite

side. In general the practitioner may be sensible of the fluctuation of the water, by applying his left hand on one side of the abdomen, and then passing on the other side with his right: in some cases it will be obvious to the ear. As the collection of water increases, the difficulty of breathing is much increased; the countenance exhibits a pale and bloated appearance; immoderate thirst; the skin is dry and parched; and the urine is very scanty, thick, high coloured, and deposites a sediment. With respect to the pulse, it is variable, being sometimes considerably quickened, and at other times slower than natural. The principal difficulty which prevails in ascites is, the being able to distinguish with certainty when the water is in the cavity of the abdomen, or when it is in the different states of encysted dropsy, or when the water is contained in small bags or cysts. When the water is in separate cysts, the bowels feel heavier, and it is very difficult to carry it off by promoting a discharge of urine.

The encysted form of the disease is more difficult to cure, though its progress to a fatal termination is generally very slow; and the peritonæal dropsy is mostly very obstinate, depending usually on organic disease in the liver or other abdominal organs. If the swelling from the beginning is equally diffused over the whole belly, the probability is strong in favour of the water being contained in the cavity of the abdomen. But if at its commencement the tumour and tension appear in one part of the belly more than another, we have much reason to suspect an encysted dropsy.

It is often extremely difficult to distinguish between a dropsy of the belly and a state of pregnancy. When deception is intended, the most skilful physician, with all his care and attention, is liable to suffer imposition, and on certain occasions the character both of the physician and his patient may essentially depend on a correct decision. "Dreadful to relate!" says Dr. Parr, "the trocar has more than once within our own observation, happily not by our direction, been plunged into a pregnant uterus." Dr. Good relates the following singular incident: "If dropsy occurs at a period of life when the catamenia are on the point of naturally taking their leave, and where the patient has been married for many years without ever having been impregnated, it is not always easy, from the collateral signs, to distinguish between the two. A lady under these circumstances was a few years ago attended for several months by three or four of the most celebrated physicians of this metropolis, one of whom was a practitioner in midwifery, and concurred with the rest in affirming that her disease was an encysted tumour of the abdomen. She was in consequence put under a very active series of different evacuants; a fresh plan being had recourse to as soon as a preceding had failed. She was successively purged, blistered, salivated, treated with powerful diuretics, and the warm bath, but equally to no purpose; for the swelling still increased and became firmer; the face and general form were emaciated, the breathing was laborious, the discharge of urine small, and the appetite intractable; till at length these threatening symptoms were followed by a succession of sudden and excruciating pains, that by the domestics, who were not prepared for their appearance, were supposed to be the forerunners of a speedy dissolution, but which fortunately terminated, before the arrival of a single medical attendant, in giving birth to an infant, that, like its mother, had wonderfully withstood the whole of the preceding medical warfare without injury.

TREATMENT.

Indications of Cure.—1. Evacuate the water.

2. Prevent the reaccumulation, by restoring the tone of the system.
To answer the first indication, give the

Compound Powder of Jalap.

This purgative evacuates the water very copiously, lessening the tension and swelling of the abdomen. Let it be repeated two or three times a week. It generally has the most signal and immediate good effect.

The next preparation to be given will be the following: Take queen of the meadow, (*spirea ulmaria,*) one ounce; milk weed, (*asclepias syriaca,*) two ounces; juniper berries, (*bace. junip.,*) two ounces; horse-radish root, (*raph. rusticanus,*) one ounce; white mustard seed, (*sinapis alba.,*) half an ounce; prickly-ash bark, (*zanthox. fraxin.,*) two ounces. Bruise all these articles separately, then mix. To the powder add one gallon of sound cider; give a wine glass four or five times a day, or as much and as often as the stomach will bear. This will stimulate the kidneys and promote a free discharge of urine, and thus aid in evacuating the watery fluid. This medicine should be continued daily, if it agrees with the patient.

After the continuance of this treatment, should it only partially remove the complaint, give the *hydragogue tincture*, made as follows: Take elder bark, (*cortex sambucus,*) one pound, if green; if dry, half a pound; add one gallon of white or Lisbon wine; simmer an hour; strain and bottle; dose, a wine glass three times a day. This is a very valuable diuretic, and I have found it very successful in the treatment of this disease. It has cured many cases without the aid of any other medicine. While the patient is taking this tincture, let him drink freely of a decoction made of the roots of the *vaccinium*, commonly called *whortleberry*. Let the root be dry and properly cleaned, cut fine, and bruised. Then add sufficient boiling water to make a strong decoction. This may be taken freely through the day, or the berries in Holland gin will answer.

Should the disease, from any cause whatever, still remain intractable after the above treatment, then administer in a little syrup, or tea sweetened, the *euphorbia ipecacuanha* fifteen or twenty grains or a small tea-spoonful at a dose; it sometimes vomits, and almost invariably purges, producing copious watery passages; it acts in a peculiarly favourable manner in all dropsical diseases. This alone has removed the dropsy; but a medicine which cures one person will not always produce the same effect on another: it therefore becomes necessary to resort to various agents. If the preceding treatment fails, the patient may take an *emetic* once or twice a week, and be steamed over *bitter herbs*, or take the vapour bath. The following may be taken at the same time: Take Indian turnip or bitter root, one ounce; add one quart of boiling water; evaporate to one pint; take a table-spoonful three or four times a day. This tea alone evacuated several gallons of water from Alderman Scott in two or three days, and he has been comfortable for several years since; occasionally from cold there is a little collection of water, but the same infusion removes it. A similar course to that just named cured a patient of mine who had used many other means without effect. Perspiration often aids much in the cure. The patient may be placed over a tub of *bitter herbs*, as directed under the head of *vapour bath*, and continued fifteen or twenty minutes, or until perspiration is produced. Let him be removed to the bed; and, if sweating takes place only partially, let a tea-spoonful of the *sudorific* or *sweating drops* be given in a tumbler of *catnip tea;* and sometimes it becomes necessary to apply two or three heated bricks to the sides

and legs; they should be covered with muslin that has been wet in vinegar, to increase the heat or vapour.

This process or operation must be repeated twice a week, being as often as the *euphorbia* is administered; or once a week will answer in protracted cases. The abdomen should be supported by proper bandages.

When the water is partially evacuated, or nearly so, a reaccumulation of it must be prevented, by giving two or three *capsicum pills* morning, noon, and night.

The *restorative wine bitters* should also be given as a tonic, to keep up the strength of the patient, create an appetite, &c.

The spirits of *spearmint* and a decoction of the *queen of the meadow*, aided by *whortleberries* and *gin*, cured Mrs. —— of a dropsy.

It is the practice to tap the patient, and draw off the water when the accumulation has become very great; but the operation is attended with only temporary benefit, and indeed the fluid appears to collect much faster after it has been drawn off than before, which precludes all hope of recovery.

In one case, where I was called too late to cure the disease, the person having an organic complaint of the uterus, and had the water often drawn off, I repeated the operation and took from her five gallons of serous fluid.

A strong decoction of *male fern root* and *blue flag root*, equal parts, taken freely, cured a very bad case, for which fifty dollars was paid. A little wine was taken during the treatment, as a tonic.

Dr. Heberden, an ancient but a very experienced author, gives his treatment for dropsy as follows: "I begin with *one*, *two*, or *three* grains of *elaterium* in one spoonful of brandy. If the first dose does not evacuate much of the water without too much disturbance, it may be repeated twice a week till the water is discharged. In the intermediate days give some cordial bitters. These active *purges* cannot always be borne, when milder ones should be used. Give *pulverized squills*, from one grain upward, one drachm of *sal diureticus; wintergreen*, *parsley*, and other herbs possessed of diuretic properties, may be taken."

Saratoga waters have proved beneficial in some cases of dropsy. Mandrake physic may occasionally be given. I cured a very obstinate and distressing case of the whole system on a child, effects of scarlet fever, by this purgative.

Dr. Henry states, in his Medical Herbal, that he was instrumental in curing a woman in two weeks, who had been troubled with the dropsy for twelve years, by the following decoction: Boil one ounce of the seneka or rattle-snake root in a quart of water till the latter is reduced to half a pint. "I first ordered a puke, and the next day a table-spoonful of the decoction every hour till she had taken the whole, which operated both by stool and urine. I then ordered *tonic* medicines, and in two weeks her husband called on me with the information of his wife's perfect recovery, which was dropsy of the abdomen."

Henry farther remarks, "I have also cured the croup or hives with this decoction, first giving an emetic, and then ordering a tea-cupful of the tea of the root every two hours, which raised a powerful perspiration. I can recommend it in all fevers."

The following formula has been given to me as a remedy for the dropsy, but I am not prepared to speak of its effect, never having tried it; but, from the component parts or ingredients of which it is composed, I think that it it may prove very beneficial:

Take mustard, half an ounce; juniper berries, one ounce; milk weed root, one ounce; horse-radish root, one ounce; black alder bark, one ounce·

mandrake root, one ounce; dwarf elder root or bark, one ounce; bitter sweet bark, from the root, one ounce: pound or bruise all, and add one gallon of hard cider. One wine glass to be taken three or four times a day on an empty stomach.

"The best two medicines," says Sydenham, "for such as are hard to purge are, *elaterium* or wild cucumber, and the infusion of *crocus metallorum*, red *sulphuret* of *antimony*. They operate powerfully in a small quantity, and carry off abundance of foul and watery humours; dose of the infusion from one and a half to two ounces, and repeated daily, as the strength will bear: it usually vomits and purges. Of the elaterium two grains are a dose. In one case the first medicine evacuated a gallon of water every day, and soon reduced the swelling one yard by measurement." He adds, "there is another pretty common and simple medicine, which cures the dropsy in the same manner as the *emetic*. It is made by boiling three handsful of the *inner bark of elder* in a quart of *milk and water*, to one pint: half of which is to be taken morning and night, every day till cured." In weak constitutions give diuretics: Take one pound of the ashes of brooms, infuse in two quarts of Rhenish wine, with a handful of *wormwood;* give four ounces of the bittered liquor morning, noon, and night.

REGIMEN.

Stimulating diet is required in every species of dropsy. *Mustard, horse-radish, red pepper*, &c., may be freely taken with food. It usually requires only a part of the remedies here recommended. But should the treatment fail, it will probably depend upon an organic affection of some of the organs implicated in the complaint.

CHAPTER III.

DROPSY OF THE CHEST. (*Hydrothorax.*)

DESCRIPTION.

By this disease we understand a collection of water in the pericardium, a membrane which surrounds the heart, or in the cavities of the thorax. Sometimes it is diffused in the cellular texture of the lungs without being deposited in the cavity of the thorax. Occasionally the water is enveloped in small cysts of a membranous nature, known by the name of hydatids, which apparently float in the cavity, but generally are connected with, and attached to, particular parts of the internal surface of the pleura, a membrane lining the chest.

CAUSES.

The causes which give rise to the disease are much the same as those which produce other species of dropsy. In some cases it exists without any other kind of dropsical affection; but it very often prevails as a part of more universal dropsy.

Bleeding and mercury may be reckoned among the most common causes of this complaint, by the debility and effusion they occasion. Also inflamma

tion of the lungs, liver, or any other neighbouring organ. Malt liquors ardent spirits, and whatever tends to produce debility or serous effusion, may cause it.

SYMPTOMS.

Hydrothorax or dropsy of the chest often comes on with a sense of uneasiness at the lower end of the sternum or breast-bone, accompanied by a difficulty of breathing, which is much increased by any exertion or motion, and is always most considerable during night, when the body is in a horizontal posture. With these symptoms there is a cough that is at first dry, but which after a time is attended with an expectoration of thin mucus. There is likewise a paleness of the complexion, and an anasarcous swelling of the feet and legs, together with a considerable degree of thirst and a *diminished flow of urine;* occasionally the face swells and pits upon pressure, especially in the morning; and these signs of the disease are accompanied by debility and loss of flesh. Under these appearances we have just ground to suspect that there is a collection of water in the chest. The symptoms which have been described gradually increase, but their progress is slow, and a considerable time elapses before the disorder is fully formed.

The difficulty of breathing at length becomes excessive: the patient can seldom remain in a recumbent posture for any length of time, and the head and upper part of the trunk must be supported almost erect. The sleep is frequently interrupted on a sudden by alarming dreams, out of which the patient quickly starts up in bed, with a sense of impending suffocation. Convulsive efforts of the muscles subservient to respiration, resembling an attack of spasmodic asthma, with violent palpitations of the heart, generally accompany the paroxysms, which are also frequently excited by the most trifling voluntary motion, or by a fit of coughing.

When afflicted with these distressing symptoms, the patient is under the necessity of continuing erect, with his mouth open, and he betrays the utmost anxiety for fresh air. His face and extremities are cold; the pulse, with little exception, is feeble, irregular, and intermits in a degree seldom experienced in other disorders; and a pain or sensation of numbness frequently extends itself from the heart toward the insertion of the deltoid muscle of one or both arms. Excepting a livid hue of the lips and cheeks, the countenance is pale, and indicates a peculiar anxiety and ghastliness of appearance, and, together with the upper parts of the body, is usually covered with a profuse clammy sweat. Drowsiness, coma, or delirium, occasioned by the difficult transmission of the blood through the lungs and want of sleep, frequently attend the latter periods of hydrothorax, and from the same cause the expectoration is sometimes bloody. Now and then a sensation of water floating about can be distinctly perceived by the patient on any sudden change of posture. The urine is generally *scanty* and very high coloured, like *brandy* or *beer*. There is a sense of tightness or stricture across the chest.

Palpitation of the heart, irregularity and intermission of the pulse, may be regarded as among the most frequent attendants on hydrothorax. But these symptoms are much varied in different cases; and we know that in some instances they are not present.

The patient sometimes observes that he has a sensation as if water were contained in the chest, passing from one side to the other in turning, or as if the heart were moving in a fluid.

The natural functions are variously disordered in the progress of hydrothorax; the appetite and digestion are sometimes impaired; the tongue foul and furred; and the bowels are various, but generally bound. The pressure of the water on the œsophagus has sometimes occasioned a distressing difficulty of swallowing.

TREATMENT.

Indications of Cure.—1. Evacuate the water.

2. Prevent its return, by exciting a healthy action of the absorbents.

It will be proper to commence the treatment of the *hydrothorax* by administering the following cathartic: Take the mandrake or May apple, (*pod. peltatum,*) cream of tartar, (*sup. tart. potass,*) peppermint plant, (*menth. pip.,*) of each equal parts; or the *compound powder* of *jalap.*

Of this powder give a large tea-spoonful; it may be given by pouring a little boiling water upon the powder, and sweetening it with loaf sugar, or it may be taken in molasses or common syrup; and *mint tea* may be freely drank after taking it. This purgative is remarkably well calculated to evacuate the water in this and other species of dropsy. It acts as a *diuretic* and as a *hydragogue*, and immediately improves the condition of the patient, by the copious evacuations of water which follow its exhibition.

I have sometimes substituted the *jalap root* for the *mandrake*, which answers the purpose; and, from the remarkable success I have more recently derived from the use of the former, I am inclined to give it the preference. One of these cathartics is by no means sufficient; they must be continued until the disease is removed, and given according to the strength, constitution, &c. As a general rule, two or three in the course of a week are sufficient. After the operation of this medicine, and the stomach has become quieted, administer the following: Take fox glove, (*digitalis purpurea,*) pulverized, one scruple, or a tea-spoonful; add half a pint of boiling water, and cover it with a plate. Of this infusion, when cool, give a table-spoonful every two hours. Should it produce any nausea, or giddiness of the head, half the quantity only should be taken. This infusion has a very powerful and sovereign effect in hydrothorax or dropsy of the chest. A very short space of time only elapses before there is a sensible improvement. It promotes reabsorption of the serous fluid, and causes a free discharge of urine. It is powerfully aided by the free use of the following tea, all of which articles are strongly diuretic: Take spearmint, parsley, elder flowers, dandelion roots and tops, a handful of each. Put them into a tea-pot, and add boiling water sufficient to make a strong infusion; this to be freely taken during the day: other diuretic herbs may be taken. The patient may be rubbed or anointed upon the chest and abdomen, morning and evening, with warm sweet oil, to which a few grains of *capsicum* or cayenne pepper has been added, sufficient to heat or stimulate the skin. When the water has been evacuated, which will be known by a subsidence of the symptoms, give three of the stimulating or capsicum pills morning, noon, and night; they act as a tonic, and in some degree as a diuretic. If the water should diminish very slowly, their use may be commenced earlier, as they will aid this evacuation.

Without great care, using preventives, &c., the disease is liable to return after convalescence. It will therefore be necessary to continue the use of the medicine some time after the patient is apparently well. Give also as a tonic, and to prevent a reaccumulation of water, the *wine bitters*. Half a wine glass may be taken three or four times a day on an empty stomach

I have found this treatment exceedingly valuable. I recently treated some very inveterate cases of dropsy, particularly of the chest, and succeeded in nearly all. Two or three of these were apparently beyond recovery. In one case the patient, Mrs. Freeman, of Newark, N. J., evidently could not survive the night; her distress was very great, and she had been afflicted with the disease for a length of time. The fluctuation of water around the heart could be heard as distinctly as water shaken in a bottle partly full. When the hand was laid over the heart it was thrown back with considerable force; great sickness at the stomach, and debility; diminution of urine; face began to grow cold with symptoms of dissolution. In this critical and almost hopeless state I ventured to give an *emetic*, which acted favourably, and, with other means, she recovered.

The treatment here laid down has, in my hands, restored to health nearly every person labouring under this disease; and a report of many of the cases would be very interesting.

Should not this treatment cure, (and I know not that I now remember a single failure,) *emetics* must be given every third day, to be accompanied with the use of the vapour bath, *compound powder of jalap*, and the decoction of Indian hemp, as mentioned in dropsy of the abdomen.

REGIMEN.

The diet should be light and nutritious. Pepper sauce may be freely taken with food; also *mustard*, *horse-radish*, and *cayenne pepper*, all of which possess medicinal properties in this disease.

CHAPTER IV.

DROPSY OF THE OVARIA. (*Ascites Ovarii.*)

DESCRIPTION.

This species of dropsy begins without much pain or constitutional disturbance. It is not usually discovered until it is much enlarged, and then appears on one side. It is known by its being moveable when the patient is in a recumbent position; and, by passing the finger up the vagina, the tumour may be felt, which distinguishes it from dropsy of the abdomen; but it seldom is the case that the tumour rises above the pelvis until *anasarca* appears, and prevents the tumour from being discovered. The fluctuation is not very perceptible, the disease being generally occasioned by the fluid which is in small white bladders of various sizes, called *hydatids*.

Until the tumour has acquired a considerable size, the patient's health suffers no very visible diminution; it then induces pain and numbness in the thigh corresponding with the side in which the swelling is situated, and by degrees the body becomes wasted, the appetite bad, and the strength impaired.

The progress of the disease varies in different cases. In some, dangerous symptoms have ensued soon after the disorder became apparent, while others have laboured under it for a year or two previous to its destroying the patient. Nothing can be more uncertain than the progress and termination of the complaint; for experience has proved that under the most apparently desperate circumstances the health has been in some measure restored, or life protracted

for a considerable time; while, on the other hand, where no urgent symptoms have been manifest, a sudden aggravation of the disease has occurred, and a rapid advance to a fatal termination has taken place.

Nothing satisfactorily can be offered respecting the causes of a dropsy of the ovarium, as women of every condition and age are found to be afflicted with it.

Dropsy of the ovarium is to be distinguished from ascites by attending to the symptoms which have been already enumerated. Great caution will be requisite in not mistaking pregnancy for this complaint, as fatal consequences might ensue therefrom. Fortunately the two may readily be distinguished from each other.

The quantity of water in ovarial dropsy is commonly from thirty to thirty-five pints, and some cases have occurred where it has been nearly a hundred.

TREATMENT.

Some are in the habit of tapping or drawing off the water in this disease; but this is attended with little or no benefit, and cannot be considered good practice. The only reliance must be upon the treatment laid down in other species of dropsy, particularly *ascites*.

SECTION I.

DROPSY OF THE WOMB. (*Hydrops Uteri.*)

It is sometimes the case that there is a collection of water or hydatids in the womb. A tumour appears over the region, which gradually increases, and somewhat resembles the figure of it. It yields upon pressure, and there is a sense of fluctuation. There is not much, if any, diminution of urine. It is distinguished from the dropsy of the abdomen by its being confined to the region of the uterus.

This disease is soon followed by general dropsy, a slow fever, and emaciation. *Treatment*, the same as *ascites*.

CHAPTER V.

CELLULAR DROPSY. (*Anasarca.*)

DESCRIPTION.

By *anasarca* is to be understood a collection of water in the cellular membrane, which is extensively diffused throughout the body, and which is moistened by a fluid thrown out by the arterial exhalents. In various ways the quantity of this fluid may be increased, constituting the disease called *anasarca* or cellular dropsy.

SYMPTOMS.

Anasarca, or dropsy of the cellular membrane, usually commences in the

lower extremities, and first shows itself with a swelling of the feet and ankles toward evening, which by degrees ascends, and successively occupies the thighs and trunk of the body. The swelling is soft and inelastic, retaining for a time the pressure of the finger; the colour of the skin is paler than usual, and, in the more advanced stages of the disorder, now and then exhibits more or less of a livid hue. When the effusion has become very general, the cellular membrane of the lungs partakes of the affection, the breathing becomes difficult, and is accompanied by frequent coughing and the expectoration of a watery fluid. The urine is scanty in quantity, very high coloured, and generally deposites a reddish or pink-like sediment, although in a few instances it is of a pale whey colour. These symptoms are accompanied by insatiable thirst, dryness of the skin, and costiveness; the countenance becomes sallow; and there is sluggishness and inactivity, together with a slow fever. When the cellular membrane of the legs and ankles is greatly distended, the water is apt to ooze through the pores of the skin, or to elevate it in the form of small blisters. The pulse is usually small and feeble.

CAUSES

General dropsy arises from a variety of causes, which concur in producing a debilitated state of the whole body. Anasarca succeeds severe hæmorrhages, (natural or artificial,) fevers, and fluxes; and it frequently occurs in the latter stages of diabetes, pulmonary consumption, or obstructed menses. Under such circumstances the dropsical symptoms commence slowly and, as it were, *imperceptibly*.

Exposure to cold and damp has frequently been followed by dropsical swellings.

General *anasarca* arises, in the next place, from excess in the use of spirituous liquors.

Another cause of *anasarca* is disturbance in the uterine functions.

The only other circumstance requiring attention in *anasarca* is, its connexion with some of the febrile eruptions. It has long been known that dropsy, particularly in the form of *anasarca*, occasionally follows scarlet fever. The same phenomenon is sometimes observed as a sequel of measles, small-pox, and erysipelas.

Anasarca is closely connected with that of hydrothorax. In many cases these forms of dropsical effusion coexist, and the remedies are the same for both.

Is it not probable that the first cause of every species of dropsy exists in the kidneys, in consequence of their ceasing to perform their office or failing to secrete the urine?

When this is the case it is retained or reabsorbed, and taken into the circulating mass. The exhalents then pour it out in greater quantities than the absorbents can take up; consequently serous or watery effusion and a collection follow, which we term dropsy.

All know that a diminution of urine is the characteristic symptom of dropsy, and that diuretics or medicines which stimulate the kidneys to a healthy action, or cause them to secrete or separate the urine from the blood, immediately relieve or cure the disease. Does not this phenomena, then, explain the cause or nature of this complaint?

TREATMENT.

The first object will be, as in every other kind of dropsy, to evacuate the water, and afterward to prevent a reaccumulation of it.

To effect which, a very similar course must be pursued as recommended under the head of *ascites* or *dropsy of the abdomen.*

If the swelling is confined to the legs, let them be steamed every night over a large tub containing a strong and hot decoction of bitter herbs, comprised of *tanzy*, *wormwood*, *hoarhound*, *hops*, and *catnip*. The legs should be held over this fomentation hot, or warm as possible; and if they do not perspire, let a heated brick or stone be put into the decoction. A blanket should be thrown over the legs to prevent the escape of the steam. If the swelling extends to the abdomen, the patient may sit over the vapour or steam, with a blanket around him, that a general perspiration may be excited. This process is to be repeated two or three times a week, or according to circumstances. It is always necessary to aid the process, by giving some *diaphoretic infusions* or *tea*, as *sage*, *hyssop*, *mint*, or *catnip*.

The following cathartic may be given about twice a week: Take jalap root, pulverized; cream of tartar; spearmint, pulverized, equal parts by weight: mix. Of this compound give a tea-spoonful every three hours until it acts freely upon the bowels. After this let the *hydragogue tincture* be given, to be accompanied with the use of the following infusion or tea: Take Indian hemp, milk weed, dandelion roots, equal parts. Make an infusion, and drink through the day.

When every other means have failed in curing the dropsy, I have succeeded by giving repeated emetics. They appear to give a new impulse or tone to the whole system, by the shock they occasion or by the sympathetic effect they exert, particularly on the skin and absorbent system. I have found the common *emetic powders* to be an excellent preparation, and may be given two or three times a week. I recently cured a very difficult and complicated case of dropsy, resulting from the use of mercury, (given to cure the intermittent fever,) by administering an *emetic* twice a week, and sweating the patient as often by the *vapour bath*, as before mentioned.

When there is great swelling in any part, fomentations of bitter herbs afford great relief. Should the disease prove obstinate, give fifteen or twenty drops of the tincture of *fox glove* four times a day, in a tumbler of *spearmint tea*.

The following preparation may be taken the same as the tincture, and at the same time: Take common whortleberries, dried and bruised, four ounces. Add sufficient boiling water to cover them. Let the whole stand two hours, then add a quart of fourth-proof Holland gin. Of this give from half to a wine glass morning, noon, and evening. I have seldom known this preparation, though simple, fail of evacuating large quantities of water, and producing a very salutary and permanent benefit in this and other kinds of dropsy.

Give also a small tea-spoonful of the pulverized root of the *euphorbia ipecacuanha*. In all other respects the *anasarca* must be treated the same as laid down under the head of *ascites*.

In all dropsical diseases, to prevent a relapse, it will be best to continue the medicine for some time after a cure has been effected

CHAPTER VI.

DROPSY OF THE SCROTUM. (*Hydrocele.*)

I SHALL here only write a few words upon this disease. I would merely state that it consists in an effusion of serum or water in the coats of the testicle. There is a tumour formed, which slowly increases and appears transparent, or light and elastic. Sometimes a fluctuation of water can be discovered. Great care is necessary to discriminate between this and hernia or rupture. In the last complaint the tumour recedes in a recumbent position, but not so in the former.

TREATMENT.

Tapping the tumour and drawing off the water is the usual course prescribed; but this is not calculated to effect a radical cure: not only so, it is desirable to cure the complaint without an operation, especially in infants and children; and this may be done by using the same remedies recommended in other kinds of dropsy, particularly *anasarca*.

It will be necessary also to use fomentations of bitter herbs to the scrotum, and to administer, two or three times a week, purgatives and diuretics. I have succeeded admirably in every case, by pursuing this method.

TYMPANITES

THE symptoms are, elastic distension of the abdomen, not readily yielding to pressure, and sounding like a drum, with costiveness and emaciation, but no fluctuation.

In the beginning we observe flatulence or difficulty of breathing, that is, hollow rumbling of the bowels. Thirst and loss of appetite, pain in the loins, and difficulty of breathing, with frequency of pulse, succeed, and wasting follows.

The persons most liable to this disease are chiefly those of a relaxed and irritable habit, such as have been debilitated by profuse evacuations, intermittents, or typhus fever; patients who have recently suffered by spasmodic and inflammatory affections of the bowels, and particularly women after child-birth.

It is sometimes occasioned by *ascites* and morbid affections of the liver; at other times by biliary or renal calculi; frequently by worms; and in one most curious case, reported by Van Swieten, it arose from hæmorrhagic effort after suppression of the catamenia and of the hæmorrhoidal flux.

It may likewise be induced by poisons, when they occasion flatulence and spasmodic constriction in the bowels.

There is evidently a preternatural distension of the intestines by air, producing loss of tone in the muscular fibres of the part distended; and, from what has been suggested on the process of digestion, it must appear that the extrication of this air or gas in the stomach or the bowels is to be attributed to some defect either in quantity or quality of the several fluids, the saliva, pancreatic juice, and bile, which are mixed with the aliment to assist in the

reduction of it into chyle, and to restrain the progress of fermentation in the fæces while they are passing the intestines. But this alone cannot be the proximate cause of tympanites; for with this must be united spasmodic stricture in some part of the intestines, which prevents the escape of wind, and this spasmodic stricture must be occasioned by some irritation in the system.

TREATMENT.

In accordance with this idea of the proximate cause, the indications of cure must be,

1. To relieve the spasm.
2. To restore the tone of the intestines.
3. To evacuate the water when it exists.

It will be necessary, in treating this disease, occasionally to administer the *compound powder of jalap;* and we must depend for a cure upon repeated stimulating injections. The following I have found very excellent: A strong decoction of the seeds of Angelica, one pint; milk, half a pint; molasses, one gill; olive oil, one gill; salt, one tea-spoonful. Introduce as much of the liquid each time as possible, to be repeated daily, or twice a day, according to the symptoms. This discharges large quantities of wind, and soon relieves the patient.

In this complaint I have found the *hydragogue tincture* to contribute essentially to the cure; also the *whortleberries* and *gin*, as mentioned under some of the preceding species of dropsy.

It appears that flatulence alone is not the sole cause of tympanites. It often depends on watery effusions or collections; and when they are of the encysted kind, the disease is very difficult to cure.

I lately attended a lady in this city whose case appeared to be almost hopeless, having, from long standing, reduced her exceedingly. But I cured her by the above treatment.

Great care is necessary to distinguish between tympanites and other forms of dropsy, particularly by those physicians who perform the unnecessary and useless operation of tapping.

When I first commenced the practice of medicine in this city I was called, with three other physicians, to visit a female having symptoms of dropsy. After each one had examined the patient, I was requested to give my opinion, which I did very reluctantly, as I was a mere tyro; and besides, I had to give it in direct opposition to that expressed by the three elderly and experienced physicians. They concurred in the statement of the principal one, that the disease was *ascites* or *dropsy of the abdomen*, and that the water must be immediately drawn off. I expressed my conviction that it was only a case of tympanites, (principally wind.) No attention, however, was paid to my youthful judgment, and the patient was tapped, but it proved to be a *dry tapping*, in which case little or no water could be obtained. One of the doctors acknowledged the fact to me afterward. This circumstance shows that neither age nor experience walk hand in hand with true science or knowledge, and also that there is not always *safety in the multitude of counci*L

CEREBRAL DISEASES.

CLASS V.

CHARACTER.

We understand by this class, cerebral diseases, those which proceed from a deranged or impaired state of the functions of the brain and nervous system.

CHAPTER I.

INSANITY OR MENTAL DERANGEMENT. (*Mania.*)

DESCRIPTION.

Insanity or mania may be termed a false perception of things, displayed most generally in the opinion formed by the patient of his nearest friends, or things in general; in a want of due connexion of the train of thoughts marked by an incoherence or raving; and in a resistance of the passions to the command of the will, accompanied, for the most part, with a violence of action and furious resentment at restraint. Every species of madness, whether it has originated in the mind or the body, becomes the same by continuance. In madness both the mind and the body must ultimately be diseased; for a disease of the mind soon produces one of the body.

CAUSES.

Proximate Cause.—Dr. Rush states that the cause of madness is seated primarily in the bloodvessels of the brain; but such is the connexion between body and mind, and such are the operations of moral and physical causes upon it, that the proximate or immediate cause of insanity is very difficult to explain. All we know is, that certain impressions, made upon the mind or sensorium, are sufficient to destroy or suspend that principle or faculty which enables a person to perceive and judge, and act rationally and consistently.

It seems to take place somewhat similar to the manner in which a musical instrument is thrown out of tune. Sufficient force exerted upon it is enough to effect this purpose, and thus with the mind. Certain agents or impressions seem capable of unhinging the sentient faculty, or throwing it into such disorder that it becomes incapable of directing the judgment or performing its functions.

Remote and Exciting Causes.—Among the various causes of mental derangement we may enumerate certain local diseases, such as enlargement of the bones, tumours, and dropsy of the brain. Certain diseases of the brain also, such as palsy, epilepsy, apoplexy, headache, &c., gout, dropsy, consumption, pregnancy, and febrile diseases, profuse evacuations from bleeding, mercury, or other causes. Perhaps the most fertile of all causes of insanity is the use of ardent spirits. Another cause of insanity is, inordinate sexual desires. Dyspepsia is probably one of the most frequent causes of insanity

A very common practice among young men and women, called onanism, is another cause of the disease. Also great pain, great labour or exercise, very hot or cold weather, and narcotic substances taken into the stomach, may produce it. Worms, foreign matters retained in irritable parts of the body, translations of morbid humours to the brain, hysterics, cutaneous eruptions, measles, inordinate ambition, intense study, and the passions, such as joy, terror, love, fear, grief, shame, may likewise be enumerated among the various causes of insanity. It frequently arises from defamation, calumny, ridicule, loss of property and beauty, and domestic quarrels.

It is said that the extravagant joy experienced by many of the successful speculators in the South Sea expedition, in England, was productive of insanity.

Charles the VI. became deranged from a paroxysm of anger. Religious enthusiasm, or mistaken notions of religion, is another cause. But perhaps one of the most common causes of insanity is, the struggle between *conscience*, or a sense of duty on the one hand and *natural propensities* on the other.

I entertain no doubt in my mind, if people would adhere strictly to the principles of true religion, they would never be afflicted with insanity.

According to a tabular statement given by Dr. Casper, it appears that, in the different hospitals at Paris, the proportion of cases depending on an hereditary predisposition is to the whole number as is one to four and a half. Esquirol states that he has met with an instance of seven sisters and and brothers in one family who were affected with insanity. Haslam mentions ten families, in each of which several cases of mental derangement occurred.

In the report of the governors of the New York Bloomingdale Asylum we find a table giving the causes of the insanity of all the patients, 233 in number, treated in the institution during the year 1841. They were as follows: Hereditary, thirty-five; puerperal, ten; uterine disorders, nine; succeeding fever and other diseases, thirteen; congenital, two; insolation, one; masturbation, twelve; constitutional, twelve; intemperance, twenty-six; injury, three; cerebral disease, twelve; fatigue and exposure, one; domestic troubles, six; pecuniary embarrassment, thirteen; religious excitement, sixteen; disappointed affection, fifteen; over-exertion of mind, three; mortified pride, seven; apprehension of want, two; fright, one; remorse, two; litigation, two; loss of friends, four; political excitement, two; homesickness, one; jealousy, one; unknown, twenty-two.

The exciting causes of mental derangement are usually divided into the *moral* and *physical;* or into those which affect the animal organization through the medium of the mind, and those which act directly upon the body. Grief, distress, want, and disappointed love are decidedly the most common exciting causes of insanity.

A derangement of the liver and stomach are the most fruitful sources of insanity. From obstruction or disorder in this organ, a morbid action of the great *sympathetic* and other nerves follows, and the functions of the brain are impaired and deranged; and, as the nerves are the connecting medium between mind and matter, it follows, from the reciprocal action, that both must be more or less implicated and deranged, simultaneously.

Dr. Burrows, a physician of high standing, states, in his work on insanity, "I have assisted at several accurate anatomical investigations, conducted by eminent demonstrators of the brain, of insane patients who have been under my care, and who had exhibited, for many months previous to their demise, the most furious symptoms of mania, and yet not a vestige of disease could be traced."

SYMPTOMS.

The most common form of insanity is the intermitting, or that in which the paroxysms of the disease are divided by lucid intervals. The accession of the paroxysms is far from being regular, but generally continues with more or less violence during the summer, and terminates toward the decline of autumn. Mania comes on at different periods of life; but in the greater number of cases it makes its first attack between the ages of thirty and forty.

Sometimes insanity, instead of being temporary, or occurring in paroxysms, which go off and return again at certain periods, continues during the whole of the person's life without any intermission, and the patient sinks at last under the violence of the conflict, without any abatement of the symptoms; or a state of perfect idiocy ensues.

Although insanity usually breaks out suddenly, the manners of the patient becoming preternaturally impetuous, his conversation hurried, his mind full of projects, which he pursues with restless activity, yet there are instances where insanity makes its approach gradually: a certain whimsicality of disposition, and waywardness or singularity of character, are observed for some time, perhaps for years, before the individual is set down by his friends as a maniac; and this is particularly the case in hereditary derangement.

In no two patients is the disease ushered in, or continued, with precisely the same appearances; for the different propensities and habits of different patients lead of necessity to a difference of idea and of expression in each. The precursory symptoms are, however, very frequently, as follows: The patient complains of a sense of tightness at the region of the stomach, want of appetite, costiveness, and a sensation of heat in the bowels. He is subject to a kind of uneasiness, which he cannot describe or account for; experiences a degree of fear that sometimes amounts to terror, and feels either little disposition or absolute incapacity to sleep. Soon after these appearances incoherence and incongruity of idea are betrayed in his outward conduct, by unusual gestures, and by extraordinary changes in the expressions and movements of his countenance. He generally holds his head erect, and fixes his eyes and attention upon the heavens. He speaks with a deep, hollow voice; walks with a quick and precipitate step; then stops suddenly, as if arrested by the most interesting and profound contemplations. Some maniacs are remarkable for good humour and mirth, which they express by fits of loud and immoderate laughter. There are others, again, whose taciturnity is perpetual; who express their afflictions by tears, or who sink without a tear under the distressing influence of solitary anxiety. The latter happens in melancholy, to which are usually added fondness for solitude, timidity, fickleness of temper, great watchfulness, flatulence in the stomach and bowels, costiveness, and a small weak pulse. Furious madness is marked by severe pains in the head, redness of the face, noise in the ears, wildness of the countenance, rolling and glistening of the eyes, grinding of the teeth, loud roarings, violent exertions of strength, absurd incoherent discourse, unaccountable malice to certain persons, particularly to the nearest relatives and friends, a dislike to such places and scenes as formerly afforded particular pleasure, a diminution of the irritability of the body with respect to the morbid effects of cold, hunger, and watching, together with a full quick pulse. The insane person often acts like a drunken man highly excited or greatly depressed. He sings, whistles, halloos, walks to and fro with rapidity, or stands still, with his arms folded and his eyes fixed upon one object; frequently he does not sleep for weeks.

The variety of mental disorder, partial insanity, (*dementia*,) "consists, not in false perception, like the worst grades of madness, but of an association of unrelated perceptions or ideas, from the inability of the mind to perform the operations of judgment and reason. The judgments are generally excited by sensible objects; but ideas collected together without order, frequently constitute a paroxysm of the disease. It is always accompanied with great volubility of speech, or with bodily gestures, performed with a kind of convulsive rapidity. We rarely meet with this disease in hospitals; but there is scarcely a city, a village, or a country place that does not furnish one or more instances of it. Persons who are afflicted with it are good tempered and quarrelsome, malicious and kind, generous and miserly, all in the course of the same day."

There is a species of insanity, called *monomania*, in which the patient is rational on all subjects, with the exception of a single one; as, for instance, religion.

TREATMENT.

Says Dr. Mc Nair: "The treatment which has been used during the last forty years in our public institutions by those physicians who believe that the cause of mental derangement is confined to the head alone, has been of such a nature as would have caused the most sane among them to become mad. It may all be embraced in the following words, namely, bleeding, cupping, blistering, and applying ice to the head; and, by those who believe that religion has been the cause, attempts were made to demoralize the patients, by associating them with the wicked and licentious."

Dr. Burrows, a distinguished physician, says: "Following example rather than experience, I tried blood-letting for several years, but discovered my error; I became more cautious, and believe that I have scarcely ordered it in six cases of simple mania or melancholy in as many years. Since I changed my practice more have recovered."

Indications of Cure.—1. The cure of mental as well as bodily diseases is to be effected, first, by reducing the system by suitable evacuations.

2. To create revulsive actions, and finally remove subsequent debility or feeble morbid actions, by tonics and stimulating remedies.

3. By the influence of proper moral treatment.

Moral and General Treatment.—Little does he know, and poorly appreciates the science of medicine, who confines it to the preparation and application of remedies to the body. The physician that is true to the high claims of his office must profoundly study the nature, the sensibilities, and powers of the human mind, the diversities of disposition, and the varieties of temperament. He must be able to trace the workings of the heart under all the influences of love, ambition, and the impulses of every passion, that thereby he may better know when to draw from the materia medica, and when he should minister to a mind diseased.

And then, how to adapt his treatment to the mental affliction, such, and so masterly, should be his intellectual and moral attainments, that he may approach and detect a secret sorrow, and sometimes claim the sacred privilege of so kindly and delicately leading the stricken and afflicted patient, as to rescue him from himself, light up hope on the pale and fallen countenance, and disappoint the decisions of despair.

It will be necessary, in the first place, when the disease is seated, to remove the patient to a place where he will be prevented from injuring himself or

others. If he is taken to an insane hospital, it must be one that is properly conducted; not one that is calculated to exasperate the complaint by the treatment and regulations established there.

Much depends upon the conduct of the physician. The practice of some is harsh, censorious, and tyrannical toward lunatics. This conduct is very reprehensible, as it prevents the recovery of the patient. His language should be that of kindness and respect; however absurd the remarks of the patient may be, never contradict them; suppress everything that may tend to wound the feelings. In a word, the law of kindness should be upon his tongue. Acts of justice and a strict regard to truth are calculated to secure the respect and obedience of deranged patients. Everything necessary for their comfort ought to be provided for them, and every promise made should be strictly and punctually performed.

"As an inducement," says Dr. Rush, "to treat mad people in the manner that has been recommended, I shall only add, that, in those cases in which the memory has been greatly impaired, they seldom forget three things after their recovery, viz., acts of cruelty, acts of indignity, and acts of kindness.

I have known instances in which the former two have been recollected by them with painful, and the last with pleasant, associations for many years. In gratitude for kindness and favours shown to them they exceed all other classes of patients after their recovery. A physician once asked a young woman of the society of Friends, whom he had assisted in curing in the Pennsylvania hospital, if she had forgiven him for compelling her to submit to the remedies that had been employed for that purpose: 'Forgive thee!' said she; 'I love the very ground thou walkest on.'"

Should not persuasion and kindness be sufficient to produce obedience, it will be necessary to use coercion; but it must be consistent with the greatest kindness. No harsh or severe measures must be taken. Moderation and decision of character should be observed.

The means generally made use of to confine those lunatics who are unmanageable, are the straight-jacket; but this has been condemned, particularly by Haslam, who employs, instead of it, a belt from eight to ten inches wide. This is passed round the lower part of the body, and fastened on the back by strong buckles. On each side leather bags are fastened, into which the hands of the patient are thrust, and secured by proper bandages. By this the pressure usually occasioned by the straight-jacket is avoided, and it is preferred or borne with less restraint. It is said that in Dubuisson's private institution, an arm-chair is used as a mode of coercion. It consists of a chair with a high back and foot-board; the arms, legs, feet, and body are fastened to it by means of strong and broad straps furnished with buckles.

This is an excellent contrivance to secure deranged patients in paroxysms of the complaint. Some have recommended total darkness in such cases; but the expediency of this measure is very doubtful.

"In the furious state," says Dr. Rush, "insane patients should never be contradicted, however absurd their opinions and assertions may be, nor should we deny their requests by our answers when it is improper to grant them. In the second grade of the disease we should *divert* them from the subjects upon which they are deranged, and introduce, as it were, accidentally, subjects of another and more agreeable nature. When they are recovering we may *oppose* their opinions and incoherent tales by reasoning, contradiction, and even ridicule."

Sometimes threatening the patient with some kinds of punishment will

tend to tranquillize them; but kindness and soothing treatment will be found the most sovereign remedy.

Amusements.—Various kinds of amusements have a tendency to benefit insane persons: such as are pleasing must be recommended Reading interesting books, writing, copying, &c., will often afford much relief.

"Committing entertaining passages of prose and verse to memory," says Dr. Rush, "and copying manuscripts, have been found useful in relieving hypochondriaism; they divert and translate attention and action from the understanding to a sound part of the mind. Reading aloud has nearly the same effect."

Dr. Burton recommends, in the highest terms, the reading of the bible to hypochondriac patients. He compares it to an apothecary's shop, in which is contained remedies for every disease of the body. I have frequently observed the languor and depression of mind which occur in the evening of life, to be much relieved by the variety of incidents and the sublime and comfortable passages that are contained in that only true history of the origin, nature, duties, and future destiny of man. A Captain Woodward, of Boston, who lately suffered all the hardships of shipwreck on an inhospitable island in the East Indies, found great comfort in revolving the history of Joseph and his brethren in his mind. A Captain Inglefield, while in a similar situation, revived the spirits of himself and crew, by relating pleasant stories.

Music has a tendency to tranquillize the mind, and may be practised. M. Luther has left the following testimony in its favour: "Next to theology, I give the highest place to music, for thereby all anger is forgotten; the devil, melancholy, and many tribulations and evil thoughts are driven away." For the same reason that tragedies afford more relief than comedies, plaintive tunes are more useful than such as are of a sprightly nature. "I attended a citizen of Philadelphia," says Rush, "in paroxysms of this disease, who informed me that he was cured of one of them by hearing the old hundred psalm tune sung in a country church. His disease, he said, instantly went off in a stream of tears." Dr. Cardan always felt a suspension of the anguish of his mind from the same cause. And Cowper tells his friend, Mr. Hayley, in one of his letters, that he was "relieved as soon as his troubles gushed from his eyes." The tears in these cases acted by indirectly depleting the brain.

Interesting Scenery.—Perhaps nothing contributes more to the recovery of insane patients than interesting scenery. Therefore an institution for this unfortunate class of our fellow-beings should be located in the most delightful, pleasant, and romantic section of the country, and especially by the side of the ocean, a lake, or a large and beautiful river or sheet of water. In a word, he should be placed in the midst of all the beauties of landscape combined; pleasant grounds and walks, groves and flower-gardens. A house should be placed in the midst of this scenery, having all the appearance of a private residence, and without anything to create an idea in the mind respecting a hospital or public institution, and the internal affairs of which should correspond with the external. The rooms should be large and convenient, with suitable furniture, and should be superintended by the most humane, kind, discreet, and judicious persons, and every means made use of to impress upon the minds of the deranged inmates that they are in the midst of a domestic circle in a private dwelling, among those who take the greatest interest in their welfare and health, or those who are their best friends. How different such a situation from some of the hospitals where

the insane are now obliged to resort; they are better calculated to render people "crazy," than to cure them of insanity.

It has been the practice to force them into narrow, cold, and dismal cells, put on the straight-jacket, or confine them to the floor by large iron chains; in addition to which, they have been obliged to submit to corporeal punishment, abuses, &c., and treated more like brutes than human beings.

Nothing will supply the place of scenery and kind treatment. An opposite course will produce gloominess and despondency, and is calculated to aggravate, rather than cure, insanity. How enlivening, how well adapted to cheer the desponding spirit, would be a situation with such advantages, especially when connected with proper nursing, diet, exercise, amusements, kind treatment, cheerful friends, with the administration of suitable medicine. A *water prospect* is inconceivably important, and should by no means be omitted in a site or situation of this kind. It has the most salutary, cheering, and permanent good effects. Sailing and fishing are also good employment. Those who are insane should be kept apart as much as possible, lest one contract an additional degree of insanity from another.

Employment.—Every insane person should be employed at something that is calculated to concentrate the mind upon one object, and dispel gloomy sensations. Females may be engaged in various kinds of domestic concerns, while males should attend to gardening, farming, or mechanical occupations.

Exercise.—This in part will be sufficient for exercise, where patients can be prevailed upon to practise it; but where they are unable to follow any kind of employment, they must often be compelled to walk or ride out.

This, by restoring the secretions and giving tone to the system, strengthens the nerves, diverts the mind, and thus has a tendency to remove the complaint.

Travelling.—Travelling is often attended with a happy effect. A change of air benefits the patient, as well as the constant change of scenery. Many persons have been entirely cured by it.

Medicine.—It is not necessary in general to give much medicine in mania; but that which is suitable may be given with advantage. Even supposing that the first cause of the disease exists in the mind, such is its influence upon the body, that it is thrown into disorder or derangement. There is usually a morbid condition of the stomach, liver, and alimentary canal Hence emetics and purgatives should be occasionally administered. Dr. Munro, speaking of emetics, remarks: "Evacuants are the best cure, and vomiting preferable to all others; and, if not carried beyond the patient's strength, nor crowded too fast upon him, his health of body will visibly improve." Where there is habitual costiveness the *anti-dyspeptic*, the *tonic*, and the *hepatic pills* may be given alternately, or at the discretion of the practitioner. They are all calculated to excite a healthy action of the stomach, liver, and bowels. The body should be frequently bathed with ley water, to divert the blood from the centre to the surface, and thus *equalize* the circulation; the feet also must be repeatedly bathed with the same, and sinapisms applied to them. When there is considerable febrile excitement, or a determination of blood to the brain, a *mustard plaster* may be placed between the shoulders, and the *diaphoretic powders* given at bed-time.

In a paroxysm, and when there is wakefulness, and the patient is unable to sleep, administer an *opium pill*, or the *anodyne powders;* or *extract* of *henbane* may be given, and repeated every two or three hours, or until the patient becomes quiet; these will exert a very tranquillizing effect. The saturated tincture of *hops* is also an excellent medicine to allay irritation and procure

sleep. When the nerves are very irritable, and there is great debility, with little or no fever, tonics may be given; and none will be found better than the *restorative cordial* or *wine bitters*.

Bathing.—The patient must use the *tepid bath* occasionally, and particularly the *shower bath*. They divert the blood from the head, and give tone and energy to the brain. A physician, who has charge of an hospital for the insane, in France, highly extols the *warm bath* in insanity. In conclusion, I will add a short account of a private institution established in England some years ago, by Dr. Willis. It is worthy of imitation:

"Dr. Willis lived at Greatford, in Linconshire, where he had one of the largest private establishments in the kingdom for the reception of lunatics. His house was pleasantly situated, with grounds and plantations neatly laid out around it, where his patients could enjoy salutary exercise, and have interesting natural objects continually before their eyes. Some of those intrusted to his care were distributed in the neighbouring villages, with proper attendants to wait upon them and overlook their conduct. An asylum in the country is better adapted 'to heal the wounded spirit' and correct the morbid trains of thought, than a crowded hospital in the midst of a large town. The calm retreat, the multitude of agreeable objects, the kind and benign aspect of the physician, his constant superintendance, the select society of strangers in similar circumstances, the fear of being put to shame, must all have a favourable effect in promoting the cure.

"From what can be gathered from the few sources of information to which we have access, the patients at Greatford were treated like human beings: they were managed like children, and not shut up, or chained down like wild beasts. Moral means were principally trusted to, yet physical ones were never neglected. The patients were taught to fear and to love their physician; they were permitted to breakfast and dine with him, and to remain in the company of others as long as they behaved well, and could restrain their feelings; whenever any transgressed the rules of good behaviour, the straight-waistcoat was employed as the badge of disgrace. No chains or bandages were ever made use of, and the straight-waistcoat only in cases of necessity."

Speaking of the numerous modifications of insanity, Dr. Abercrombie says: "A most interesting affection of this class often comes under the observation of the physician, consisting of deep, but erroneous, views of religion, generally accompanied with disturbed sleep and considerable derangement of the system, and producing a state of mind closely bordering on insanity. It occurs most commonly in young persons of acute and susceptible feelings, and requires the most delicate and cautious management. With such individuals a regular course of history appears to succeed best, and fixing the attention by writing out the date and leading events in the form of a table. When the mind has been thus gradually exercised for some time in a connected train of thought, it is often astonishing to observe how it will return to the subject which had entirely overpowered it, with a complete dissipation of former erroneous impressions. A frequent complaint at the commencement of such an exercise is, that the person finds it impossible to fix the attention, or to recollect the subject of even a few sentences: this is part of the disease, and, by perseverance, gradually disappears. This experiment I have had occasion to make many times, and it has always appeared one of extreme interest. I do not say that it has uniformly succeeded, for the affection frequently passes into confirmed insanity; but it has succeeded in a sufficient number of instances to give every encouragement for a careful repetition of it. The plan is, of course, to be assisted by regular exercise, and attention

to the general health, which is usually much impaired. The *affections* are particularly connected, in a very intimate manner, with a *disordered state of the stomach and bowels*, and with derangements in the female constitution; means adapted to these become, therefore, an essential part of the management."

The above remarks of Abercrombie, and the following from Young, were handed me by Elizabeth White, a very pious member of the society of Friends, and who was subject to great despondency, and sometimes partial insanity:

"Art thou dejected? Is thy mind o'ercast?
Go, chase thy gloom—go, fix some weighty truth;
Chain down some passion; befriend thy greatest foe;
Or, with warm heart and confidence divine,
Spring up, and lay strong hold on Him who made thee:
Thy gloom is scattered, sprightly spirits flow."—*Young.*

"Do thy best,
And leave the rest."

Dr. McNair recommends the following plaster to be placed along every part of the spine, and particularly on the back of the neck: "Take venice turpentine, nine parts; Spanish flies, pulverized, six parts; white wax, two parts; mustard seed, powdered, red pepper, each one part; melt the pitch and wax, then add the turpentine, and to these, while hot, add the other ingredients: mix well together, and form into thin plasters. This," he adds, "I consider one of the best applications for diseases of the spine, accompanied with want of vigour in the constitution, which is generally the case in nervous affections. Spread the salve on a strip of adhesive plaster about three and a half inches long and one and a half inches broad, leaving one quarter of an inch of margin; apply to the back part of the neck, and let it remain twelve or eighteen hours; it will produce a discharge for three or four days, when another may be applied below; and thus let them be changed, and a little discharge kept up." [See Irritating Plaster, p. 712.]

REGIMEN.

A light and nutritious diet should be given. Such medicines as create wind must be avoided. The room is to be kept quiet, and no instruments left through which suicide can be committed.

CHAPTER II.

FUROR UTERINUS AND PRIAPISM.

DESCRIPTION.

By this disease we understand an inordinate priapism and excessive desire for coition, sometimes amounting even to insanity or mania.

TREATMENT.

1. Let purgatives be administered, to reduce the system.
2. Let refrigerant applications be applied to the organs of generation and over the pubis.

3. Occasionally let *anodynes* be given.
4. Let the patient be restricted to a low diet.
5. Let the patient avoid company.

CHAPTER III.

MELANCHOLY. (*Melancholia.*)

DESCRIPTION.

Melancholy is a low kind of delirium, with a fever; usually attended with fear, heaviness, and sorrow, without any apparent occasion. Or, as some define it, a disease which consists in the perturbation or injury of the imagination, which prevents it from forming a regular and determinate idea of things, as at other times; so that its due operations are interrupted, and often second ideas, having no connexion with the first, crowd in, and are succeeded by actions nowise analogous or similar to the first idea, and, therefore, appearing irrational.

CAUSES.

It may proceed from an hereditary disposition, melancholic temperament, depressing passions or affections of the mind, great and affecting disappointments, dyspepsia, suppressed evacuations, intemperance, and injuries of the cranium. Sometimes it is occasioned by a sedentary life and solitude, and by acute fevers or other diseases. It is sometimes the effect of excessive venery; and is frequently produced by gloomy and fanatical notions of religion

SYMPTOMS.

"In this disease," says Dr. Temple, "the patient shuns society and courts solitude, is fearful and low spirited, and these symptoms are frequently observed for some time before an actual derangement is perceived. He indulges a certain train of thoughts upon one subject, and generally fixes upon that which was the cause of his misfortune, if it has been brought on by any sudden and violent affection of the mind. The face is generally pale; the urine small in quantity, and watery; the patient is commonly costive, and the stomach affected with *wind;* and in some cases so miserable are the feelings, that the unfortunate wretch seeks every opportunity of putting an end to them, by terminating his existence."

To these symptoms the following may be added: The patient is fretful, capricious, and inquisitive; solicitous about trifles, and alternately niggardly and prodigal; he has a distaste and dislike to everything, even before it comes in sight, and frequently weeps for imaginary causes, or for no cause at all. Many people in this case seem always to want room; they are for opening all the windows they can, and for running out into the streets or fields, thinking themselves everywhere imprisoned; others leave their houses, and dread being taken up for capital offences, though never guilty of any; and in others these symptoms of the mind are evidently joined with those of the body, such as palpitations of the heart, deep sighs, and painful breathing.

This disease is varied in an infinite number of ways, according to the tempe-

rament and ideas of the person affected with it. It is a species of madness, and only differs from a downright mania in degree.

There is a lower species of melancholy, called low spirits, to which persons of weak nerves are more or less subject. Generous diet, the cold bath, exercise, and amusements are the most likely means to remove this complaint. It is much increased by solitude and the indulgence of gloomy ideas, but may often be relieved by cheerful company and proper regimen.

TREATMENT.

In the treatment of melancholy, attention must be directed to the mind as well as the body. The patient should be amused with a variety of scenery; and take freely of exercise in the open air, such as riding, walking, gardening, farming, &c. He should peruse interesting books, and converse with cheerful friends; and, above all, be located amid pleasant scenery, where he can enjoy a water prospect, a country air, and country diet. The shower bath must often be used, after which rub the whole body well with coarse flannel. A mild *emetic*, gentle *laxatives*, and *restorative bitters* can occasionally be taken.

The diet should be principally vegetable, but not of those vegetables which produce flatulence. He may use milk, if it agrees with him, and eat fruit, particularly after it has been cooked.

CHAPTER IV.

EPILEPSY OR FALLING SICKNESS. (*Epilepsia.*)

DESCRIPTION.

Epilepsy, called also falling sickness, is a sudden privation of sense, accompanied with unusual motions and violent convulsions of the whole system. It occurs in paroxysms, which, after a period, leave the patient nearly in his former state; but they are generally succeeded by languor, debility, stupor, and drowsiness. It takes place more frequently among young children than grown persons. It occurs also periodically, and oftener in the night than in the day-time. It is frequently an hereditary disease, attacking several in the same family.

CAUSES.

Blows, wounds, fractures, and other injuries done to the head by external violence, together with plethora of the vessels of the head, of water in the brain, tumours, concretions, polypus, and a deformity in the shape of the bones in any interior part of the skull, give rise to this disease. Epilepsy has also been known to arise from an affection of the spinal marrow; and it is to inflammation in that part, of a more chronic form, that those shaking palsies, which are attended with pain, have been imputed. Violent affections of the nervous system, sudden frights, fits of passion, great emotions of the mind, frequent intoxications, acute pains in any part, worms in the stomach or intestines, teething, the suppression of some long-accustomed evacuation, too great emptiness or repletion, and poisons received into the body, are pro-

ductive of epilepsy. Sometimes it is hereditary, and at others it depends on a predisposition arising from a disease of the sensorium, which is occasioned either by plethora or a state of debility. Derangement of the stomach and bowels is a very frequent cause of this complaint.

SYMPTOMS.

The epileptic fit, for the most part, occurs suddenly; the patient falls to the ground, and hence the disease has received the appropriate name of the *falling sickness*. When the complaint is fully established, it is usual for the patient to experience certain warnings of the approach of a fit, which, though lasting only a few seconds, enable him to make some preparations for it. The most frequent of these warning symptoms are, headache, giddiness, dimness of sight, or flashes of light passing before the eyes, ringing in the ears, and coldness of the extremities. Some persons are apprised of the approach of the fit by the appearance of particular spectres; but the most common of all epileptic warnings is that singular sensation of tremour, or coldness, or numbness, which has been called the *aura epileptica*. It begins at the extremity of a limb and gradually ascends to the head, when the paroxysm of lethargy and convulsion ensues.

During the fit the convulsive agitations of the body are violent. The eyes are fixed and reverted, and the pupils permanently contracted; the teeth gnash against each other; the tongue is thrust forward, and often severely bitten, and there is foaming at the mouth; the breathing is irregular and laborious; and the pulse, for the most part, small and contracted. Complete insensibility prevails. The fit varies in duration, from a few minutes to a quarter, or even half an hour; in some cases it has lasted even longer. On its cessation the patient remains for some time motionless, insensible, and apparently in a profound sleep. From this he recovers by degrees, but without any recollection of the circumstances of the fit. It leaves him weak and exhausted, and for the rest of the day he generally complains of a degree of stupor and sense of oppression in the head. In many cases this has amounted to actual *mania*, continuing for two or three days.

The periods of recurrence of the fits are too various to admit of being stated with any degree of accuracy. When the disease first developes itself, the intervals are long, perhaps two or or three months. As it becomes more firmly rooted in the system, the fits recur with a corresponding frequency, until at length the patient hardly passes a day without one. It is important, however, to bear in mind, that genuine epilepsy seldom occurs oftener than this; and, therefore, when a person has more than one fit in the day, we may reasonably conclude that the disease is of an *hysterical* nature.

Epileptic fits occur at all hours; but much more commonly during the night than in the day; sometimes on first going to sleep.

TREATMENT.

During the epileptic paroxysm in general, little or nothing is to be done, except using precautions that the patient may not injure himself; and it will be prudent to remove anything which may compress the veins of the neck, to obviate congestion in the head.

Indications of Cure.—1. To remove all sources of irritation.

2. To return the blood to the brain.

3. To alter that morbid condition of the nervous system on which convulsion depends; and to strengthen the body.

To one or other of these principles may be traced the good effects of all the medicines and plans of treatment which prove efficacious in the cure of epilepsy.

In the epilepsies of infants and children, scarification of the gums may sometimes prove beneficial; also the administration of an emetic, occasional doses of purgative medicines, the more liberal use of mild aperients and tonics, and strict attention to diet and regimen. Where the symptoms indicate the presence of worms, medicines to remove them must be immediately exhibited.

When the irritation is seated in the uterine system, (scanty and laborious menstruation, and the peculiar periods at which the fits recur,) our measures must be directed to the restoration of the natural determination to the uterus. Recourse may be had to the warm hip bath, stimulating injections, relaxing medicines, diaphoretics, and the different kinds of *emmenagogues*.

The second principle in the treatment of epilepsy is, the obviating general plethora, and the taking off that peculiar determination of blood to the vessels of the head, which is one of the most important features in the pathology of the disease. Such a principle is equally applicable to the sympathetic as to the primary varieties of epilepsy. Where the disease is still recent; where it occurs to adults and young persons of robust habit; and, more especially, where, in the intervals of the fits, the patient complains of headache, giddiness, stupor, or any other mark of permanent fulness in the bloodvessels of the brain, *purgatives* and *sudorifics* must be given. It may even be necessary to repeat them, before the tendency to accumulation of blood about the head can be thoroughly subdued.

Keeping the same important object in view, the practitioner will aid the effects of medicine by directing a mild and unirritating diet, early hours of rising and going to bed, regular exercise, abstinence from all fermented liquors, washing the head and neck with cold water, and bathing the feet. Under particular circumstances he may, if other means fail, substitute cupping between the shoulders, *mustard plasters* to the nape of the neck, and the steady use of purgative medicines.

The physician will attempt to alter that peculiar condition of the brain and nervous system with which the state of convulsion is associated. Experience has shown that medicines of the *narcotic* kind possess a considerable power over it. Many of them have accordingly been employed in epilepsy, and with advantage; more particularly camphor, opium, hyoscyamus, and stramonium. Farther; there are the strongest grounds for believing that the morbid irritability of the brain and nerves, on which spasm depends, is often connected with general constitutional *weakness*. Hence it is that many of the most powerful of the *anti-spasmodic* medicines are, in fact, *tonic*.

Medicine.—Having detailed the general indications and principles of cure, I shall now speak of the administration of particular kinds of medicine.

1. *Emetics.*—The stomach being either primarily or secondarily affected in this disease, it will be necessary to administer our common emetic once or twice a week, according to circumstances: from the extensive influence of emetics on the system, they are adapted to diseases of this kind; they stimulate the stomach, liver, pancreas, brain, and whole nervous system, and usually bring on more or less perspiration.

2. Moderate *purgatives* should also be occasionally given, to cleanse the first passages and intestines: afterward laxatives or aperient medicines may be taken, sufficient to keep the bowels regular.

3. *Anti-spasmodics* must be given. The following I have found preferable

to any other: Take seeds or herb of stramonium, (*datura stramonium*,) pulverized, one drachm; henbane, a tea-spoonful; spirits, half a pint: digest until the strength is extracted. Of this tincture let from twenty to fifty drops be taken three times a day in a little tea, or any suitable vehicle. The dose may be increased until there is a slight degree of dizziness, when the dose should be continued the same.

Tonics.—I have found, by experience, that epilepsy is a disease of general debility or weakness; indeed it seems to be the proximate cause of the complaint: I have, therefore, always derived the greatest benefit from such medicines as have given the most tone and energy to the system.

The following formula combines anti-spasmodic and tonic properties: Take garden pæony, (*pæonia officinalis*,) one ounce; Peruvian bark, (*cinchon. officinal*,) one ounce; Virginia snake-root, (*serpent. Virginian*,) half an ounce; wild valerian, or ladies' slipper, one ounce: extract all the strength from these by repeated boilings, then strain, and simmer to one quart, and add a pound of loaf sugar and half a pint of Madeira wine. Of this the patient may take from half a wine glass to a wine glassful three or four times a day, fasting.

I have found that *fine salt* has a very salutary effect in epilepsy. As soon as there are any premonitory symptoms, give a tea-spoonful in a little water, and, if practicable, repeat in fifteen or twenty minutes: it prevents or shortens the fit, and may be taken two or three times a day.

Capsicum is also very good in this complaint, and may be given in the form of powder, half tea-spoonful doses, in syrup or water, just before an accession of a fit, or when there are any unpleasant symptoms. It may likewise be given combined with other articles, as follows: Take tincture of *lobelia seeds*, one pint; tincture of *capsicum*, one pint; tincture of valerian, three gills, or in this proportion; mix: dose, from a small tea-spoonful to a small table-spoonful, occasionally, or according to circumstances, in water.

Take *dragon's claw*, (called also *crawley amaranthus*,) fever root, &c., two ounces, bruised; *wild valerian;* ladies' slipper or nervine, bruised, one ounce; put the ingredients into a two quart pitcher, and pour boiling water upon them. Dose, half a pint twice a day, milk warm. The warm bath three times a week, and a cold salt water bath, may be used after the fits have been suspended. The shower bath will probably be better than the cold bath.

The above will be found well calculated to remove the disease; but should these means fail, others may be tried.

The following is used by a celebrated French physician, in Paris, for epilepsy: Nitrate of silver, six grains; extract opium, one drachm; musk, two scruples; camphor, four scruples: mix, and divide into ninety-six pills. The dose is one pill, night and morning, gradually augmented, according to the patient's ability to support it. These pills are employed in the treatment of chronic nervous affections, more especially of epilepsy.

Dr. Henry states, in his Herbal, that several miserable patients have been radically cured of epileptic fits or convulsions, (under the Divine blessing,) by the following prescription, in three or four weeks: Take one pound of fresh green leaves of *stramonium* or stink-weed, pound them, press out the juice, put it in a pewter plate, and place in the sun to evaporate; stir frequently, until the extract is fit for pills. First give the patient an *emetic;* the next day give a small sized pill of the extract (two grains) night and morning. The dose may be increased to three grains morning, noon, and night.

I was recently in a Methodist meeting, where a person was taken with a

fit during the sermon. He was immediately taken out, and I examined him. One asserted that it was no fit, and supposed that he fell under a *religious excitement*. I expressed an opposite opinion, and stated that he was subject to fits: on the removal of a cravat from his neck, which was drawn so tight as to prevent a free circulation of the blood, he immediately recovered, and said that it relieved him; he then informed us that he was subject to the disease. Two inferences may be drawn from this circumstance: *first*, avoid fanaticism, and never impute to *supernatural* that which arises from *natural* causes; *second*, upon an attack of the kind, remove all tight bandages from the neck or waist, and give plenty of air.

Shower Bath.—The patient may use the shower bath three or four times a week, after which the body should be thoroughly rubbed with flannel. If the above means fail to cure the disease, the *restorative* and the *wine bitters* may be alternately used. *See pages* 698,699.

REGIMEN.

It is necessary to diet in epilepsy; and it should be light and nutritious. Ardent spirits must be avoided; also all fatigue, and everything calculated to excite the passions.

Dr. * * * * * * * *, of Connecticut, was cured of this disease by pursuing a rigid course of diet. He avoided all fat and greasy substances, and observed Franklin's rules, to rise from table with a desire for more food.

Epileptic patients ought to breathe a free and pure air. Exercise is likewise of great service, but the patient must be careful to avoid all extremes of heat and cold; also all dangerous situations, such as standing or working upon houses, precipices, or near deep waters, rivers, &c., lest a fit should happen to come on at the time, and thus prove fatal.

CHAPTER V.

APOPLEXY (*Apoplexia.*)

DESCRIPTION.

Apoplexy is a sudden privation, in some degree, of all the senses and motions of the body, except those of the heart and lungs. The disease is usually divided into two species, the *sanguineous* and *serous*. The first is caused by the blood distending the vessels, and thereby compressing the brain, or by an extravasation of blood in consequence of the rupture of a vessel: the second arises from a collection or effusion of a serous fluid in the cavities of the brain.

Apoplexy makes its attacks chiefly at an advanced period of life, and usually on those who are of a corpulent habit, with a short neck and large head, and who lead an inactive life, make use of flesh, full diet, &c.

CAUSES.

There appears to be a predisposition to apoplexy, either hereditary or from a peculiar formation of body, as a full plethoric habit, a short thick neck, a florid complexion, broad shoulders, short statue, corpulency, &c. The dis-

ease, however, sometimes occurs in persons who are spare and delicate. Persons advanced in life are more subject to it than younger persons.

The immediate cause arises from an effusion of blood, in consequence of the arteries throwing more into the veins of the head than the veins can retain, by which congestion and rupture take place; or rather their inability to return the blood.

A predisposition to apoplexy is farther given by such *habits of life* as tend to produce plethora generally, to drive the blood in more than ordinary quantity upon the vessels of the brain, or to prevent its free return to the heart. Hence it is that full living, habitual intoxication, sedentary pursuits, too great indulgence in sleep, intense and long-continued thought, have always been accused of leading to apoplexy.

The principal *exciting* causes of apoplexy are, the distention of the stomach by a full meal, the immoderate use of wine or spirits, straining to evacuate a costive stool, violent exercise, very long or loud speaking, severe fits of coughing, tumours on the neck, stooping, the recumbent posture, and, lastly, violent passions of the mind. It is a singular circumstance, that both heat and cold, when in an extreme degree, may occasion apoplexy. The *coup de soleil* of hot climates has been considered, on good authority, to be of the nature of apoplexy. The improper use of the warm bath has brought on complete and fatal apoplexy. Bleeding and mercury are two great causes.

SYMPTOMS.

Generally there are premonitory symptoms of apoplexy, which may be termed *incipient;* and it is in this stage of the disease that the most benefit of proper treatment is derived. In the first state of the disease there is generally a dull pain in the head, weakness, giddiness, particularly on stooping down, dimness of sight, drowsiness, loss of memory, faultering of the tongue, bleeding from the nose, flushed face, heat of the head, and vomiting. But its attack is often sudden, when the person falls to the ground without warning, and lies as in a deep sleep, from which he cannot be roused: or he may be convulsed, foam at the mouth, and the saliva or spittle be blown away from the mouth with considerable violence. The teeth are clenched, the face is red and puffed up, the veins of the neck and head full, bleeding from the nose, eyes fixed, breathing difficult and hard, swallowing impossible or difficult, pulse strong at first, then weak; it sometimes causes palsy of one side. The fit may last but a short time, or it may be protracted for twenty-four hours, and sometimes several days. Sometimes the first attack proves fatal; if not, each succeeding one is more aggravated; but the third one generally carries off the subject of it.

In serous apoplexy the attack is more gradual in general, the face pale and humid, the veins depressed, the pulse small, weak, irregular, and intermitting; respiration is impeded and stertorous, and the extremities are cold and flaccid. Sometimes these appearances are preceded by vertigo, torpor, and an impediment in the speech, together with a failure of memory.

Although the whole body is affected with the loss of sense and motion in apoplexy, it takes place, nevertheless, very often more on one side than the other, which is called a hemiplegia; in this case the side least affected with palsy is somewhat convulsed. In some few instances of apoplexy the patient lies for several days insensible and motionless, and yet gradually recovers the use of his understanding and muscular strength; but for the most part he is permanently deprived of the command of one side of his body

or he regains it imperfectly after a time ; his mind sustains a shock, from which it never recovers; his sensations and perceptions become less accurate; and his memory and powers of combining, or at least his faculty of expression, are much weakened ; for, even while his memory and imagination are unimpaired, he is not always able to find appropriate words to express the notion which is excited in his mind.

TREATMENT.

Indications of Cure.—The object to be accomplished in this complaint will be, during the paroxysm, first, to suspend it, by recalling the blood from the brain to the surface and extremities ; second, to prevent a determination of blood to that organ.

When called to a person labouring under a fit of apoplexy, prompt and energetic measures must be put in execution. The patient should be immediately removed to a pleasant, airy, and cool place, and placed in a recumbent position, to favour a return of blood from the brain. All compression should be removed from the neck, and all tight bandages or ligatures. The feet and legs must be immediately immersed in very warm ley water. This simple process is attended with the most extraordinary effects in all cerebral affections, as well as numerous other diseases ; the reasons of which will appear obvious to all who have perused the principles of this practice, detailed in the second part of this work. I have never known it fail to exert a salutary and decided good effect. The feet and legs should remain in the water fifteen or twenty minutes, and friction then applied to them. The whole surface must also be bathed with a mild tincture of capsicum, and applied very warm. If the patient is unable to take medicine, a large injection or clyster should be immediately administered, made as follows: Take infusion of lobelia and capsicum, one pint ; milk, one pint ; sweet or olive oil, one gill ; molasses, one gill ; fine salt, a tea-spoonful ; mix, and introduce the whole with a French syringe. This will serve nearly all the purposes of a purgative, with the additional advantage of a quicker operation. From the large quantities of feculent matter which it discharges from the bowels, and from its action upon the brain through the medium of the stomach, it is productive of great benefit. The patient should be covered warm, in order to excite perspiration. Hot bricks, covered with cloths wet with vinegar, may be applied to the extremities, to assist in recalling the blood back to its original channels.

In all the cases that I have ever attended of apoplexy I have invariably found that the cause of the disease consisted in an unequal circulation of the blood. It recedes from the extremities, and is effused upon the brain. Hence, when you ask a patient who has the premonitory or incipient symptoms of apoplexy, if the feet are not cold and head hot, he will answer in the affirmative ; from which circumstance the indication of cure may be clearly inferred.

A mustard plaster should also be immediately applied between the shoulders.

As soon as the patient can swallow, let a brisk purgative be administered This class of medicines is very important in apoplexy.

It is sometimes occasioned by an over-distention of the stomach, and a morbid state of the alimentary canal ; and evacuations of this kind are necessary, not only to unload the stomach and bowels, but likewise to remove the turgescence or congestion of the brain, by the sympathetic action exerted on

this organ through the medium of the stomach. These are the means to be pursued during an attack of the complaint, and they will be found altogether more effectual than the sanguinary practice now pursued, viz., "to abstract a vast quantity of blood, from six to eight pounds," to use the language of a standard author. It seems astonishing that physicians persist in pursuing a practice which has been conclusively shown, by writers, to bring on apoplexy, or congestions of the brain. Occasionally an author may be found who has experienced the mischievous effects of bleeding, and among the number, I think, is Professor Recamier, who has several times observed, "loss of blood in such cases aggravates the cerebral congestion." I have not the least evidence that blood-letting has the smallest power to diminish the violence or duration of an apoplectic paroxysm; but, on the contrary, I have every reason to believe that it so far weakens the powers of reaction as greatly to retard the cure, or prove fatal to the patient.

My friend Mr. Richardson, whose recommendation of this work is herein given, had symptoms of incipient apoplexy. I ordered him to apply cold water to his head and hot water to his feet, by immersion, which forced back the blood from the upper to the lower extremities with such velocity through the heart, that he was afraid that it would kill him: however, it removed the disease. This shows what *simple* treatment will accomplish—even the use of water

Since preparing the above for the press, I have seen a patient of mine, Mr. Stammers, of Haerlem, who had been labouring under the premonitory symptoms of apoplexy for a length of time, and had been repeatedly bled for it, with injury only; after this I prescribed for him, when in the most imminent danger. He was distressed with pain and heat in the head, flushed countenance, beating and fulness of the bloodvessels of the head, &c. I gave brisk purgatives, at first twice a week, then once a week; I then ordered his feet to be often bathed, cold applications to the head, and light vegetable diet. This course has entirely removed the complaint. The whole secret or art of treatment consists in equalizing the circulation.

I attended an elderly person who was subject to apoplexy, and who, upon an attack, or the approach of symptoms, sent for his physician, who bled him; after a while it appeared almost necessary that he should be bled to save his life. I remonstrated with the man, and told him the consequence of such a procedure. He, however, paid no attention to my remarks, but continued to submit to the treatment of his family physician; after a short time the complaint proved fatal, as I predicted.

I attended a patient, about the same age, with the same complaint, pursued the treatment recommended above, and he recovered, and now enjoys good health. When the patient has recovered from an attack of apoplexy, (and sometimes it continues a week or two in a greater or less degree,) the next object will be to prevent a return of it; to effect which, it will be necessary to continue the use of *purgatives* about once a week. *Emetics* may be given where there is nothing to contra-indicate their use; they likewise should be repeated as often as the purgatives: they have a very beneficial effect, by diverting the blood from the head, and throwing it into the capillary system; and they have also a tendency to keep up perspiration. Moderate sweating should be now and then encouraged by the use of the vapour bath, which likewise has a tendency to prevent a return of the complaint, by expelling such humours or extraneous agents as corrupt, or as cause a thick and sizy state of the blood; in other words, it has a tendency, with the other means recommended, to purify it. For the same purpose the patient may

take *alterative syrup*, and infusions. It will be necessary to continue the practice of bathing the feet at least three or four times a week. The head may likewise be bathed with a weak tincture of *capsicum*, particularly when there is any pain. These measures must be continued until there are no symptoms of the disease remaining. I have been in the habit of occasionally applying cups to the temples and the nape of the neck, when the patient has complained of a fulness and dizziness of the head, and have found that benefit was derived from it; but I have never resorted to cupping, even during an attack of the complaint, (except once, and then it was of no service; neither bleeding;) and very seldom in any stage of it, having invariably succeeded by the other means already mentioned. In a very severe paroxysm it may be justifiable to resort to it. In the treatment of apoplexy I now dispense with emetics and the vapour bath.

REGIMEN.

Much depends upon diet in this complaint. It is often brought on by high living, inducing plethora, and, therefore, may be prevented or cured by an opposite course of living. No high-seasoned victuals, meat, &c., must be used; neither wine, fermented liquors, nor ardent spirits; the patient should be confined to a cooling, spare, vegetable diet, with regular exercise in the open air; the use of the tepid bath likewise: great fatigue or exertion are to be avoided; also intense application to study. He must be careful not to stoop, or continue in a bended posture: avoid sudden transitions from heat to cold, and in all things observe universal temperance. By this course I have often been instrumental in removing the first symptoms of this disease.

CHAPTER VI.

CATALEPSY. (*Catalepsia.*)

DESCRIPTION.

Catalepsy consists in the temporary suspension of voluntary motion, and consciousness and volition; the exact position of the body remaining the same as it was when the attack came on. It generally lasts a short time, when it subsides, leaving the person in the same condition as formerly, without any disease, or recollection of anything that has passed.

CAUSES.

Catalepsy may arise from various causes; from passions, intense application of mind to any study or pursuit, suppressed customary evacuations, worms, morbid state of the stomach and alimentary canal, plethora, &c. A person died of the catalepsy in this city, and was examined by Dr. Kissam, who stated that one of the valves of the heart had become callous or undurated.

SYMPTOMS.

The disease sometimes commences with distinct, but brief, premonitory symptoms; but more generally the attack is sudden, and commences without

any warning; but when there is any warning given of its approach, it is known by swimming in the head, or headache, lassitude, pain in the breast, sense of heaviness, tremour of the hands and legs, flatulence, yawning, &c When an attack commences, it is very sudden, and the patient remains in the same position, like a statue, without being able to move a single finger The eyes remain immoveably fixed, either open or closed. If a limb is changed, it still remains fixed in the same position, until the paroxysm subsides. All the senses are entirely suspended, and the patient remembers nothing that has occurred: and it is stated that, if the paroxysm comes on while he is conversing, or in the performance of any other continuous act, he will resume the thread of the conversation, or even finish the half-pronounced word, or continue his acts, as soon as the paroxysm is over, as if no interruption had taken place. It is stated that cases have occurred where patients, during a paroxysm, have continued their employment, such as walking, without any consciousness of it. A case is mentioned by Galen, in which the patient (one of his fellow-students) lay motionless, like a dog, with his eyes open, but he heard and remembered what occurred during the paroxysm. Sometimes respiration is feeble and the surface cold.

The continuance of a fit of catalepsy varies from a few minutes to several days. The patient, when it leaves him, sighs deeply. Sometimes the paroxysm comes on three or four times a day, and only lasts a few minutes. Hoffman mentions the case of a woman, in which upward of one hundred paroxysms occurred during a period of forty days.

Catalepsy is sometimes complicated with other diseases, such as epilepsy, hysteria, &c.

This disease seems to be similar, or nearly allied, to what is called a *trance*, and *ecstasy*. It will either go off spontaneously, or may be removed by medicines and proper diet.

TREATMENT.

During a paroxysm of the catalepsy friction should be applied to the surface and extremities, and particularly around the region of the heart. Afterward the disease must be treated on general principles; all the secretions and excretions regulated. The stomach, bowels, and skin should be kept in a healthful tone. Administer *anti-spasmodics* and *restoratives*, with suitable *diet* and *exercise*.

CHAPTER VII.

LETHARGY. (*Coma.*)

DESCRIPTION.

Lethargy is generally a symptomatic disease, arising from apoplectic symptoms or a morbid state of the stomach, or some other complaint. It may also arise from the use of opium, or other narcotic substances.

TREATMENT.

Sometimes drowsiness or lethargy proves exceedingly troublesome, as the

person affected with this complaint frequently falls asleep, contrary to his wish. When this is the case, the best remedy, and one that is very effectual, is the administration of an *emetic*, to be repeated occasionally; and also immersing the feet in warm water.

The bowels must be kept regular. A light vegetable diet should also be used.

CHAPTER VIII.

FAINTING OR SWOONING. (*Syncope.*)

DESCRIPTION.

Fainting consists in a decreased action, and sometimes total cessation, of the pulse and respiration. It is sometimes preceded by anxiety about the heart; a sense of fulness ascending from the stomach toward the head; vertigo, or confusion of ideas; dimness of sight; and coldness of the extremities. Attacks of syncope or fainting are frequently attended with, or end in, vomiting, and often in convulsions or an epileptic fit.

CAUSES.

Fainting is most generally occasioned by profuse evacuations, especially of blood; but it may happen also from violent passions of the mind, surfeits, excessive pain, violent exercise, disgusting sights, drinking freely of warm or strong liquors, exposure to great heat, intense application to study, certain odours or smells, &c.

People of delicate constitutions are subject to it from slight causes; and sometimes it will arise from affections of the heart and large vessels, not easy to be understood. Fainting is also a symptom of many disorders, (especially of that fatal one called a *polypus of the heart*,) such as the plague, profuse bleeding or flooding, and other diseases.

A disposition to this disease may take place wherever debility exists; but when it frequently recurs without any obvious cause, a morbid state of the heart or brain is to be suspected.

SYMPTOMS.

A syncope begins with a remarkable anxiety about the heart; after which follows a sudden extinction, as it were, not only of the animal powers and actions, but also of the vital powers, so that the patients are deprived of pulse, sense, and motion all at once.

In these cases the patient does not entirely lose his senses, but turns cold and pale, and the pulse continues to beat, though weakly; the heart also seems to tremble rather than beat, and the respiration or breathing is just perceptible. But in the true syncope not the smallest sign of life can be perceived; the face has a death-like paleness, the extremities are cold, the eyes shut, or at least troubled; the mouth sometimes shut, and sometimes gaping wide open; the limbs flaccid or relaxed; and the strength quite gone; as soon as the patient begins to recover he draws deep and heavy sighs.

TREATMENT.

In order to revive the patient, he ought to be laid in a horizontal posture, in any airy place; the legs, thighs, and arms are to be rubbed with hot flannel; very strong vinegar, or salt of hartshorn, may be held to the nostrils, and the following mixture given: Take spirits of hartshorn, (*aq. ammonia*,) ten drops; compound spirits of lavendar, (*spts. lavend.*,) one teaspoonful: mix. Dilute with water, and give the whole. If circumstances permit, let the feet be immersed in warm water, and the breast and pit of the stomach rubbed with the tincture of *capsicum*.

If the patient does not soon revive, let a little hot spirits or brandy sling be administered. Persons subject to fainting should avoid all crowded assemblies, or places where the air is confined. They are to avoid everything calculated to excite the mind or the passions, as well as too much labour or fatigue. All tight bandages, neck-cloths, corsets, &c., must be immediately removed.

CHAPTER IX.

GIDDINESS. (*Vertigo.*)

DESCRIPTION.

Vertigo or dizziness is generally symptomatic of some other complaint, such as dyspepsia, and hypochondria; or it may be a premonitory symptom of apoplexy, or over-determination of blood to the head.

SYMPTOMS.

The patient is suddenly seized with a sense of swimming in the head; everything appears to him to turn round: he staggers, and is in danger of falling down. This complaint is attended with very little danger where it arises from hysterics, or any nervous disorder: but when it arises from plethora, or an unnatural quantity of blood in the head, there is danger of apoplexy.

This complaint often proceeds from difficult or obstructed menstruation

TREATMENT.

It will be necessary, first, to ascertain the cause of the complaint. If it is symptomatic of some other disorder, that must first be removed, in order to cure it; but if it be a primary affection, or be apparently seated in the head or stomach, a *purgative* should be occasionally used, and the feet bathed. If this does not remove it, administer an *emetic*.

CHAPTER X.

DELIRIUM TREMENS. (*Mania a Potu.*)

DESCRIPTION.

This is a disease which, in this day, very often occurs among those who are addicted to an excessive use of ardent spirits, and such as indulge in the use of opium and other narcotic substances. It is characterized by most of the ordinary signs of insanity. This disease is called, by some, the brain fever of drunkards.

CAUSES.

It is difficult to state, with certainty, what the proximate cause of this complaint may be. Dr. Coates, who wrote a treatise on it, says that "the disease is the result, not of the application, but of the sudden intermission of the use of these articles." But it appears to arise from excessive stimulus of the stomach and brain, in which organs the complaint is seated.

SYMPTOMS.

It commences with nausea, vomiting, or belching of wind, and sometimes after a sudden disuse, it is said, of stimuli, and in subjects addicted to the use of spirits to excess, without becoming habitually drunk. The complaint seems to come on gradually, and it is several days before it arrives at its greatest degree of violence. There is great wakefulness, walking to and fro, or raving, and the patient seems to be in the greatest agitation and distress of mind. He is very apt to imagine that there are evil spirits continually before him, or haunting him. I was called to one case of this kind, where the person insisted that there were devils before him, which he could see upon the carpet. "This disease," says Thatcher, "is always attended by febrile symptoms; and it is one of its peculiarities that the mind is continually haunted with the idea that they are infested by snakes and insects. I have frequently seen patients," says he, "weary in attempting to catch snakes, which they imagined were curling about them under their clothes." The countenance assumes a peculiar appearance, expressive of anxiety, alarm, and suspicion. The patient becomes irritable, talkative, and often cries out for assistance. He becomes boisterous and raving, being continually tormented with the idea that some one is about to rob or destroy him. The system is usually more or less disordered during the complaint. There is costiveness, loathing of food, &c. Delirium tremens usually runs its course in four or five days, and often terminates in a fit of epilepsy; at other times, where it is properly treated, the patient recovers.

TREATMENT.

The first object of the practitioner in this complaint will be, to allay the paroxysm, and to calm and support the nervous system, and afterward, by a proper course of treatment, to prevent a return of the complaint. For this

purpose brandy or spirits may be given, which usually affords immediate relief. Should there be a determination of blood to the head, which may be known by a redness of the countenance, a fulness and beating of the carotid arteries, heart, &c., the first object will be, to equalize the circulation, by recalling the blood to the surface and extremities. This may be effected by bathing the feet and legs in a tub of warm ley water, and applying *mustard plasters* to the feet and nape of the neck. At the same time a *cathartic* may be administered: after its operation, should the symptoms continue, give a pill made of the solid opium, about the size of a small pea, which contains three grains, to be repeated every three hours until rest is procured. This will break the paroxysm and procure sleep. Afterward the patient must be treated according to the symptoms exhibited. *Emetics* will be found very useful, and may be given in the same kind of spirits that the patient has been in the habit of taking.

NERVOUS DISEASES.

CLASS VI.

CHARACTER.

This class of diseases is confined, or apparently confined, to the nervous system. Irregular or preternatural motions of the muscles or muscular fibres are its usual characteristic.

CHAPTER I.

HYSTERICS. (*Hysteria.*)

DESCRIPTION.

Hysteria or hysterics is characterized by a grumbling noise in the bowels, followed by a ball ascending to the throat, attended with a sense of suffocation, stupor, insensibility, convulsions, laughing and crying without visible cause, sleep interrupted by sighing and groaning, attended with flatulence.

CAUSES.

This disorder may be produced by various causes. It usually arises from certain passions operating upon a feeble constitution. The persons most liable to this disease are females, from the time of puberty to the age of thirty-five, unmarried women, and young widows, chiefly those of the sanguine temperament, relaxed habit, great sensibility, and of an irritable fibre; more especially after profuse evacuations; the indolent, and those who are exhausted by either long-protracted fevers or habits of intemperance; and such also in whom the uterine hæmorrhage is unseasonably stopped, or habitually obstructed. Can we, therefore, hesitate to assign debility, with morbid irritability, as the predisposing cause?

SYMPTOMS

This disease attacks in paroxysms or fits. These are sometimes preceded by dejection of spirits, anxiety of mind, effusion of tears, difficulty of breathing, sickness at the stomach, and palpitations at the heart; but more usually a pain is felt on the left side, with a sense of distention, advancing upward till it reaches the stomach, and thence into the throat; it occasions, by its pressure, a sensation as if a ball was lodged there. The disease having arrived at this height, the patient appears to be threatened with suffocation, becomes faint, and is affected with stupor and insensibility; while at the same time the trunk of the body is turned to and fro, the limbs are variously agitated, wild and irregular actions take place in the alternate fits of laughter, crying, and screaming; incoherent expressions are uttered, a temporary delirium prevails, and a frothy saliva is discharged from the mouth. The spasms at length abating, a quantity of wind is evacuated upward, with frequent sighing and sobbing, and the woman recovers the exercise of sense and motion without any recollection of what has taken place during the fit; feeling, however, a severe pain in the head, and a soreness over the whole body. In some cases there is little or no convulsive movement, and the person lies for some time seemingly in a state of profound sleep, without either sense or motion.

However dreadful and alarming an hysteric fit may appear, still it is seldom accompanied with danger; and the disease never terminates fatally, unless it changes into epilepsy or mania, or the patient is in a very weak and reduced state.

TREATMENT.

In the cure of hysteria two indications are to be attended to:

The first is, to allay the spasmodic symptoms, which constitute the fit.

The second, to lessen the excitability of the nervous system, and strengthen the whole frame during the intermission of the paroxysms.

During a fit the patient's dress should be loosened, so that the circulation and respiration may be embarrassed as little as possible; cold water should be sprinkled, or rather dashed, over the face, the body laid in a recumbent position, with the head elevated, and a current of air admitted into the apartment. The attendants may be employed in rubbing the temples, abdomen, and extremities. It is usual for five or six persons to clinch the patient during an hysteric fit, and confine her to the bed, or in a certain position; but this practice should be avoided. It is best to use only force sufficient to keep the patient from injuring herself or her attendants. When she suddenly rises and springs from the bed, allow as much latitude, liberty, and motion to the body and limbs as possible. If the patient shows a disposition to roll upon the floor, to use the language of the late Professor Smith, of New Haven, "let her roll."

When called to treat the disease during the paroxysm, the first object will be to suspend or shorten it. To this end, such measures must be adopted as have a tendency to divert the blood from the centre of the circulating system toward the extremities; in other words, to *equalize* the *circulation* and nervous excitement. It will, therefore, be of the first and greatest consequence to *immerse the feet and legs* in very *warm water*. If the patient can swallow, give an *emetic*: in the next place administer the *expectorant tincture*, which removes the rising in the throat, sense of suffocation, and the phlegm or

mucus collected upon the stomach, while at the same time it throws the blood to the surface and extremities, and makes such an impression upon the brain and nervous system, that the paroxysm is often cut short by a single dose, even under the influence of spasms. Where the teeth are tightly clinched, a small quantity of the *expectorant tincture* may be introduced into the mouth between the teeth, which will relax the muscles, cause the patient to open her mouth, and enable her to swallow. Should it, from any cause, be impracticable to administer medicine, the following injection may be given: Take a strong infusion of catnip or other herb tea, one pint; milk, half a pint; sweet or olive oil, one gill; molasses, one gill; laudanum, a small tea-spoonful; fine salt, a small tea-spoonful: mix. Let the whole be, if possible, introduced at a time, blood-warm, with a French syringe. This alone rarely fails to moderate the symptoms very speedily, and induce a complete intermission of the spasmodic action. It will also be necessary to apply to the abdomen fomentations of hops, wormwood, and tanzy, equal parts, boiled in vinegar and water, to be renewed as often as the fomentation becomes cold. This course will soon bring about an intermission of the hysteric fit.

Should the above, however, fail, give the *anodyne powders*. This is infallible under all circumstances and in all cases. I have prescribed it where a number have attended the person, under the influence of hysteric fits, for a whole day, and in an hour or two the patient was free from pain and convalescence. I have now spoken of the treatment of hysteria during a paroxysm; and, having suspended it, our next object will be to prevent a recurrence, to which the patient is very liable; and this must be effected by restoring the tone of the system. We may commence by giving a moderate *cathartic*, as this will cleanse the stomach and bowels, and prepare the way for other medicines. After the operation of it, an *aperient pill* must be taken, to regulate the bowels, which, in this complaint, are habitually constipated; for this purpose I give the *anti-dyspeptic* pill. Two or three should be taken at bed-time, in a little currant jelly or roasted apple, to be continued until the bowels become regular. This is very necessary, as the complaint is often induced by an inactive or torpid state of them, causing fetid gases and feculent matter to accumulate in the intestines. During the day the patient should take from half a wine glass to a wine glassful of the *restorative cordial* or *bitters*. This preparation invariably improves the condition of the patient; it creates an appetite, gives tone and energy to the nervous system, and prevents a recurrence of the hysteric paroxysm.

Where we wish to effect a radical cure, a mild *emetic* may be given once a week. It is only necessary to excite gentle vomiting, which contributes much toward the cure, by imparting tone and energy to the stomach and nerves.

With me the above treatment has uniformly and invariably been successful I have been called to the patient when she has been nearly destroyed by the lancet—a succession of paroxysms immediately attending its use—irritable, delirious, and extremely feeble; the countenance almost as white as marble; and, by discontinuing such practice, and substituting the course here recommended, a remission of all the hysteric and nervous symptoms have followed, with convalescence and recovery.

REGIMEN

There is no disorder that requires more care and attention, as regards diet soothing or kind treatment, &c. Nothing harsh or censorious must be said

to the patient, or anything calculated to arouse the passions or emotions of the mind. She should be kept as quiet and composed as possible: no sad intelligence suddenly imparted, if at all; the mind kept as free as possible from every kind of anxiety; must avoid great fatigue or labour, nursing of infants who are too old, and, in short, every cause of debility. She must exercise often in the open air; and never overload the stomach, but use a nutritious diet, and such as easily digests.

Some years ago I was called to a young lady of this city, recently from England, or Canada, labouring under this complaint, which had been brought on by adversity; she had become reduced from a degree of affluence to great poverty, and, being ashamed to make known her situation, submitted to great privation. She was finally assisted by a religious society; but a sense of her former and present situation produced great nervous debility, hysterics, with more or less delirium. A physician of this city had greatly aggravated her symptoms by his treatment, having bled her until her countenance became like marble, her strength gone, confined to the bed with great irritability of the nervous system, &c. Besides, the family with whom she resided did not treat her kindly: all these circumstances rendered her truly miserable. I now reversed the treatment, and received her into my family, endeavour to treat her with kindness, in addition to proper medical treatment. The change was surprising; all her unfavourable symptoms vanished; her appetite returned; also her flesh strength, reason, and spirits; in short, she entirely recovered, and has remained well ever since.

CHAPTER II.

HYPOCHONDRIA. (*Hypochondriasis.*)

DESCRIPTION.

By the term *hypochondria* is to be understood a disordered or diseased state of the mind, arising generally from debility of the nervous system, connected usually with dyspeptic symptoms. It is denominated, by some, spleen, vapours, low spirits, &c. In this complaint the patient's mind is harassed with great anxiety, principally from the anticipation of imaginary evils, or from the slightest grounds; and, however erroneous such imaginary troubles may be, there is always the most obstinate belief and persuasion of them. It is the lowest grade of mental derangement.

CAUSES.

This disease seems to depend upon a loss of tone or energy in the nervous system, induced by various causes, such as close and intense study, long and serious attention to abstruse subjects, the constant remembrance of some material loss or disappointment which has occurred, great anxiety of mind, leading an inactive, indolent, or sedentary life, immoderate venery, or a use of crude, flatulent, or unwholesome food, being guilty of great irregularity and intemperance, and by long-continued evacuations.

Hypochondriasis and other nervous complaints are, through the medium of sympathy, scarcely less infectious (it is probable) than febrile diseases;

and even persons naturally of a cheerful temper, by being long domesticated with those of a melancholy, desponding cast, have been known to become decidedly, and often deplorably, dejected.

SYMPTOMS.

This disease is attended with inactivity, a want of resolution with respect to all undertakings, lowness and dejection of spirits, great despondency, apprehension of evil upon the slightest grounds, and a dread of danger from any unusual feeling, even of a trifling kind, together with flatulency in the stomach and bowels, acid eructations, costiveness, a copious discharge of pale urine, spasmodic pains in the head and other parts of the body, giddiness, dimness of sight, and palpitations; in short, it is attended with such a long train of symptoms, that it would fill many pages to enumerate them all, as there is no function or part of the body that does not suffer in its turn by its tyranny; the miserable patient indulges wild imaginations, and fancies that he labours under almost every disease; and, with respect to these feelings and apprehensions, he entertains the most obstinate belief, being highly displeased if any attempt is made to reason with him on the absurdity of his persuasions.

The symptoms of this form of derangement, as they appear in the body, are, dyspepsia, costiveness or diarrhœa, with slimy stools, and flatulency of urine.

One of the most prominent symptoms of hypochondriacal disorders is, a most distressing *dread* and *fearful apprehensions*, and a despair of recovery. The judgment is impaired, so that almost everything is viewed in a wrong light. This disease is frequently attended with fear and dread of death. It is peculiar to the sedentary and studious, and such as are possessed of genius and great sensibility, and hence has been pronounced the "disease of the learned:" the dull, stupid, and corpulent are seldom or never subject to it.

Another symptom is, a disposition to apply to various physicians, or to take a variety of medicines.

The person who labours under this disorder often imagines that he is afflicted with various diseases, and sometimes that he has live animals inside of him. Every little pain or unpleasant symptom is magnified, and he is harassed with horrid forebodings of evil; fear that he will come to want; fearful apprehensions; and constant fear of dying: very fickle and peevish; liable to quarrel with friends and relatives; is irritable and capricious; great depression and despondency of mind, often on the subject of religion; sometimes in despair. I know a person who was a year in this state, and she suffered awfully, being in despair, and all apparently from a congested state of the liver: free purging cured her. I have known others who have committed suicide under the influence of this disease. Cowper, the poet, was subject to it. It renders the subject of it the most unhappy being; and, notwithstanding, his friends generally, instead of manifesting sympathy, treat his case lightly, or rather with ridicule.

TREATMENT.

Indications of Cure.—1. Restore the nervous energy.

2. Mitigate or remove the exciting causes of the complaint.

3 Give tone to the stomach and alimentary canal, and promote the secretions.

The complaints of hypochondriacs should be treated as of real existence:

and, from whatever cause they may arise, it is our duty to employ art to remove it. Nor should we ruffle an irritable mind by levity, or expose a morbid sensibility to insult and reproach.

Compassion, and not raillery, is to be bestowed on the hypochondriac, as the firm persuasion which he entertains will not allow his feelings to be treated as imaginary, nor his apprehension of danger to be considered as groundless, however the physician may be of opinion that it is the case in both respects. To gain his confidence, it will be necessary to attend to his complaints as if they were real.

In general it is physical diseases which lead people to commit suicide. The disposition is produced by derangement of the brain or nervous system, and hence our attention should be directed to the fact: we should treat all affections of the mind as serious maladies. Persons who have attempted suicide, and have been rescued from it, subsequently, upon their recovery, express an abhorrence of the deed. The general health must be improved.

The remedies for this form of derangement divide themselves into two classes:

1. Such as are intended to act directly upon the body; and,

2. Such as are intended to act indirectly upon the body, through the medium of the mind.

Gentle *purgatives* and *injections*, with *anodynes*, may occasionally be given.

Before we proceed to administer the remedies that are indicated under our first head, it will be proper to review carefully the history of all the remote and exciting causes of this disease, and, when possible, to remove them.

As regards medicine, we may commence by administering to the patient a mild *emetic*, which may be repeated, if the disease is obstinate, every week. The day after the exhibition of the emetic, a portion of our *common physic* may be given. These medicines will cleanse the stomach and bowels, and impart new action and tone to them, which is indispensably necessary in the cure of this complaint.

It will be proper, in treating this disease, afterward to give mild *laxatives* to regulate the bowels; and for this purpose there is nothing better than the *anti-dyspeptic pill*, to be occasionally given at bed-time. It corrects a morbid state of the stomach and intestines, and very gently excites a natural or peristalic action or motion, and thus gives tone and energy to the nervous system.

The next class of medicines to be given will be corroborants or tonics, such as the *restorative cordial*, or *wine bitters*.* The patient may take from a table-spoonful to half a wine glass morning, noon, and night, to be accompanied with an infusion of the common *valerian*. The body should be frequently bathed, as well as the feet; and, for pain in the head or other parts, *fomentations* and a *mustard plaster* should be applied to the seat of irritation, except it be in the head, when the *rubefacient* should be applied between the shoulders. When the patient is troubled with flatulence or any spasmodic affections of the head or stomach arising from it, or when there is great depression of mind, the following mixture may be given: Take spirits of camphor, ten or fifteen drops; spirits of hartshorn, five or ten drops; compound spirits of lavender, a tea-spoonful: mix. Let the whole of this be taken in half a tumbler of *fennel-seed tea*. This mixture will remove flatulence, nervous irritation, and exhilarate the spirits. It may be repeated when there is an occurrence of similar symptoms.

* Half an ounce of *red oxide* or *carbonate of iron* may be added to every quart of the *restorative wine bitters:* it is also a good addition for hysterical and all nervous diseases.

Ipecac may be given in this complaint. Take ipecac, pulverized, twenty grains; castile soap, one drachm; extract of chamomile, one drachm: mix. Divide into forty pills; take two twice or three times a day, or the *ipecac pills* may be given. Ipecac strengthens the stomach, causes a moisture of the skin, and favours the natural action of the bowels. In addition to what has been stated, it may be remarked, that, in regard to the *moral management*, great kindness, and encouraging and consoling conversation, are attended with good effects. The patient should not be opposed, except when he entertains false impressions about his disease or prospects—symptoms so prominent in this complaint; he should never be treated with ridicule. A strong attempt must be made to remove his groundless fears; for the greatest part of his affliction consists in a deranged state of his perceptive faculties, received through the medium of the great sympathetic nerve, which leads from the brain to a disordered stomach.

I have been called to patients almost frantic with hysterical or hypochondrical paroxysms; and, by sitting down with them, conversing calmly, and reasoning with them, and showing how groundless were their fears, they have recovered in a few minutes; so great is the tranquillizing effect of soothing language, and imparting an opposite impression to the brain or nervous system. It is the duty of the physician to administer to the diseased mind as well as the body. The remarks below from a physiological lecturer are appropriate. Referring to his own experience he could say that "he believed if Payson and Brainerd and Martin had understood the laws of the physiological constitution, they would not have suffered, as they did, such a remarkable degree of despondency; and what they considered the vileness of their own hearts was often only the corruption of their bodies. He knew that persons, afflicted, as he had been, with a nervous affection, could not but be in a gloomy state, if they did not understand the laws of the physiological constitution. Many there probably could bear testimony to the truth—he spoke to those that loved God—how often the heavens seemed to gather blackness; their hearts appeared hard, and as though God had forsaken them; and this condition perhaps continued for days and weeks and months, and perhaps for years. But by and by perhaps they were a little better; health and hope sprang up anew, and they saw once more the light of the sun of righteousness, and felt its cheering rays in their hearts. This he believed was often attributable to the state of their bodies."

Dr. Gilman, of the state of Maine, when called to females labouring under a nervous or melancholic state of mind, prescribes the use of the *spinning-wheel*, which invariably restores them to health. In conversation with an aged minister, Mr. Smith, of Haverhill, Mass., and who has preached half a century, he remarked, in relation to the religious experience of nervous persons, as follows: "Weak nerves are the Devil's fiddle-strings, and he plays away well upon them."

Says Hebberden, an old and experienced physician; "The nerves of the stomach and bowels have so great a dominion and control over the whole nervous system, and these parts are so generally disordered in hypochondriac and hysteric patients, that, in my judgment, the best medicines will be such as correct their acidities, and are known by experience to be efficacious in restoring them to their proper strength and functions."

"I would by no means be understood, by anything which I have said, to represent the sufferings of hypochondriac and hysteric patients as imaginary; for I doubt not their arising from as real a cause as any other distemper. However, their force will be very different, according to the patient's choos-

ing to indulge in, and give way to, them, or to struggle against and resist them, which is much more in his power than he is aware of, or can easily be brought to believe: and it is surely a cause worthy of any one's utmost endeavours and exertions; for his striving to shake off this distemper is not contending about a frivolous concern, but whether he shall be happy or miserable; since it is of the essence of this malady to view everything in the worst light: and human happiness, in many instances, depends not so much upon a man's situation and circumstances, as upon the point of view in which he contemplates them."

Bathing.—Two persons, Mrs. Moulson, of Philadelphia, and Mrs. Ludlum, of this city, inform me that they both experienced great benefit from salt water, in the summer season, in nervous debility.

"Exercise," says Boerhaave, "by dissolving the viscid humours and promoting the circulation of the blood, increases perspiration, and by this means expels morbid humours and removes obstructions. These effects render it more important than all other remedies in insanity and nervous diseases."

When the disease proves very obstinate, not readily yielding to this course, the *anodyne powder* will be found a valuable remedy; it will sometimes act like a charm when all other means fail. Cowper, who was subject to this complaint, states that a preparation of it saved him from being devoured by melancholy. It calms the irritability of the nervous system, by raising the tossed or depressed powers of the brain. Should costiveness arise from its use, aperient pills must be taken to obviate it.

A remarkable cure was effected by the use of opium in the case of Mr. Hezekiah Reynolds, of Wallingford, Connecticut. He had been a miserable hypochondriac for three years, and had applied to a number of physicians without ever having received any benefit. In this condition opium was prescribed, of which he was directed to take from half a grain to a grain daily, which was gradually increased. This medicine had the desired effect, and restored him to health. Speaking of the cure, he exclaimed, "this is the medicine (opium) which has reached my disease."

Opium, however, for obvious reasons, should be the last remedy resorted to.

When the mind is so diseased that the patient imagines he has a living animal in his body, or something of the kind, he must be indulged in this belief, and apparent or deceptive means taken to destroy it, or to remove whatever cause of this nature may exist. Great attention must be given to the mind. The person afflicted with this disease should be recommended to read the Bible, particularly the New Testament, and to seek relief in obedience to the precepts of religion; or, if he has no relish for this, recommend the perusal of interesting histories and narratives. *Travelling* has a powerful influence upon the mind of hypochondriacs; the change of *scenery*, constant succession of new objects, together with the restoration of the excretions, the natural circulation of the blood, all tend to remove the morbid or diseased state of the imagination.

Gardening and *agriculture* have a great tendency to remove this complaint; while it engages the mind, and calls it from objects of gloom, it invigorates and strengthens the bodily powers. It seldom fails to create a keen appetite, which indicates a healthful state of the stomach, and, consequently, the tone of the nervous system is improved. If possible, the patient should reside where the scenery is pleasant and cheering, and near the water is always preferable, as it affords enlivening sensations to the mind, while it affords opportunities for agreeable amusements, pleasant walks, sailing, fishing, &c.

A writer on this subject has the following remarks: "The patient's atten-

tion is to be engaged in, and diverted to, other subjects than his own feelings, he is to be directed to vary the scene frequently, by going from one place to another; associate as much as possible with agreeable, cheerful company; engage in such pursuits as will afford him moderate exercise in the open air, which gardening and riding on horseback are admirably calculated to do; and by all means to avoid absolute idleness; but, in doing this, all applications to former studies, especially professional ones, are to be forbid: entertaining books will, however, be serviceable in assisting to divert the mind from itself. Gardening is a pursuit highly proper for hypochondriacs, as it will keep the mind alert and the body in exercise; such as live in the country should, therefore, engage in it. In cities or large towns, where this healthy recreation cannot be enjoyed, no better substitute can be employed than that of fitting up an apartment as a work-shop. Working in a cool and free atmosphere would prove a deliverance from that chilliness which, for above half of our year, so miserably persecutes the tender (and it might act equally as a charm on the ruffled) spirits. When the hypochondriasis proceeds from the influence of any one passion, exciting an opposite one will sometimes remove it; or, when it proceeds from attachment to an object, changing it to some other will remove it, as in disappointed love."

A striking case occurred in Connecticut, where the affections of a young man were placed upon a coquette, who deceived him. He became affected with the hypochondriac disease, which rendered him very unhappy and miserable. He opened his mind to a friend, who advised him to place his affections upon some other female, which he did. He travelled south, was taken ill, and became attached to the person who nursed him during his sickness, and afterward married her, the effect of which was an entire change in his mind. His complaint left him, and he has remained perfectly well ever since.

From sacrifices and long-protracted mental sufferings, (in establishing this system of Practice,) and other causes, about two years since the author of this work was reduced very low with a complaint of the *liver* and *stomach*. The force of the disease was exerted principally upon the nervous system, and for nearly a year induced such indescribable *depression*, *despondency*, and *mental anguish*, as bordered at times on insanity. Fearful and destructive apprehensions were constantly present, and every little pain or symptom was magnified, and caused dangerous or serious anticipations; nearly all the unavoidable distress consisted in this state of the mind, and which was occasioned by *irritation* on the *nerves* of the *stomach* sympathizing with those of the *brain*, and next the mind: this should be well understood by hypochondriac and nervous patients. "Those who recover from this complaint," says Dr. Cheyne, "I have observed, live to a green old age."

Although somewhat humiliating, I publish this for the benefit of those who may unfortunately be afflicted with the same *horrid* disease.

REGIMEN.

The regimen in the *hypochondriac* disease should be such as is easily digested. Those vegetables must be avoided which create flatulence; meals are to be taken regularly and at stated times; fatigue and excessive labour avoided, and everything calculated to excite the passions or depress the mind. *Red pepper* or *capsicum*, *mustard*, and salt may be freely used; they act as stimulants and tonics. Strong coffee and tea must be avoided, as well as ardent spirits. *See Melancholy and Insanity.*

Nothing can surpass, nor even equal, the efficiency of exercise in nervous diseases; and I have long been persuaded that it is the principal remedy which can afford much permanent benefit in a majority of cases of this most distressing class of diseases. Abernethy is in the habit of saying, that he knows of no medicine but air and exercise for nervous complaints.

CHAPTER III.

PALSY. (*Paralysis.*)

DESCRIPTION.

Palsy is a disease principally affecting the nervous system, characterized by a loss or diminution of motion or feeling, or of both, in one or more parts of the body. When one entire side of the body, from the head downward, is affected, it is distinguished among professional men by the name of hemiplegia. If one half of the body, taken transversely, by the seat of the disease, it is named paraplegia; and, when confined to a particular limb or set of muscles, it is called a paralysis.

CAUSES.

It may arise in consequence of an attack of apoplexy. It may likewise be occasioned by any thing that prevents the flow of the nervous power from the brain into the organs of motion; hence tumours, over-distention, and effusion often give rise to it. It may also be occasioned by translations of morbid matter to the head, a suppression of usual evacuations, and the pressure made on the nerves by luxations, fractures, wounds, or other external injuries. The long-continued application of sedatives will generally produce palsy, as we find those whose occupations subject them to the constant handling of white lead, and those who are much exposed to the poisonous fumes of metals or minerals, are liable to be attacked with it. Whatever tends to relax and enervate the system, may likewise prove an occasional cause of this disease.

SYMPTOMS.

Palsy usually comes on with a sudden and immediate loss of the motion and sensibility of the parts; but in a few instances it is preceded by a numbness, coldness, and paleness, and sometimes by slight convulsive twitches. When the head is much affected, the eye and mouth are drawn on one side, the memory and judgment much impaired, and the speech is indistinct and incoherent. If the disease affects the extremities, and has been of long duration, it not only produces a loss of motion and sensibility, but likewise a considerable flaccidity and wasting away in the muscles of the parts affected.

The most perfect form of cerebral palsy is *hemiplegia*, in which the affection extends over the whole of one side of the body, from the head to the foot. Sometimes it takes the form of *paraplegia*, or palsy of the lower extremities; and in some rarer instances the affection is confined to the loss of function in a particular nerve.

Hemiplegia, to which form of the disease the term *palsy* is in common language appropriated, has generally been considered as a minor degree of apoplexy. The attack of it is sometimes unexpected, but more commonly it is preceded for several days, or even weeks, by one or more of those symptoms formerly described as the forerunners of apoplexy; such as giddiness, drowsiness, numbness, dimness of sight, failure of the powers of mind, forgetfulness, transient delirium, or indistinctness of articulation. For the most part, the paralytic seizure is sudden; but occasionally the approaches of the disease are made more slowly; a finger, a hand, or an arm, the muscles of the tongue, of the mouth, or of the eyelids, being first affected, and the paralytic state gradually extending to distant parts.

TREATMENT.

In case the disease should attack the patient suddenly and violently, the same course must be pursued as in *apoplexy*.

Spasmodic symptoms are very common in this complaint. The person is seized with a violent twitching of the muscles of the face, generally those on one side of it, which occasions very great distress. For this symptom, and to allay the spasm and pain, give the following mixture: Take ether, (*æther sulphuricus*,) one part; laudanum, (*tinct. opii.*,) one part; spirits of camphor, (*tinct. camphoræ*,) one part: mix; of this mixture give a tea-spoonful in a tumbler of *hop tea*, or any other kind as a substitute, every half hour until the spasms subside. During the intermission the patient must take such medicines as are calculated to promote and equalize the circulation, and purify the blood; for this purpose the stimulating drops may be taken, a small tea-spoonful in a tumbler of any kind of tea, two or three times a day. The parts affected must be as often bathed with flannel. Let poultices, or plasters composed of equal parts of *pepper*, *mustard*, *and Indian meal*, moistened with vinegar, be applied to the feet, between the shoulders, and on the parts affected.

Purgatives in palsy will be found very useful. One may be given two or three times a week, or as occasion requires. They rarely fail of proving beneficial to the patient.

It is sometimes the case, however, that the lower portion of the system is in such a torpid or paralytic state, that no purgatives will act upon the bowels. When this symptom is present, stimulating injections or clysters must be administered.

The following is excellent: Take red or cayenne pepper, one tea-spoonful; lobelia, two tea-spoonsful; add a pint of boiling water. After standing a sufficient length of time to extract the strength, sweeten with molasses, add half a pint of milk and a gill of sweet oil. Let it be given warm, and as much of it as the patient can bear. This will excite action in the bowels and promote evacuations. *Salt* and *water* make a very good injection. I have seen patients in whom the fæces have been so hardened that instruments were required to remove them; in such cases nothing is more valuable than injections of this kind. It is very necessary in this complaint to use frictions; the parts must be rubbed for twenty or thirty minutes, two or three times a day. Where the feet or any other part swell, let them be frequently steamed over bitter herbs; this I have found very useful. When the disease is seated in one particular part more than another, I find stimulating plasters very useful. None is better than our common *strengthening plaster*, more particularly in consequence of the *capsicum* and *camphor* it

contains. If the patient does not grow better under the above treatment, give the *alterative syrup;* this medicine acts as an alterative, and seems to improve that morbid or viscid state of the blood, which is probably one of the exciting causes of the complaint. During the use of it let the part be bathed with the *rheumatic liquid.*

For wakefulness, pain, inquietude, &c., an *anodyne* may be given at bedtime. The *saturated tincture of hops* may likewise be given, particularly when preparations of opium disagree with the person. The tincture or extract of *hyoscyamus* is also very good.

Electricity has been highly extolled for the cure of palsy; in some cases it appears to have been successful, in others injurious. I have known both effects arise from its application. The most benefit which I have seen from it has been where the disease was confined to particular parts. Recourse may be had to it, if other means fail; or it may be tried in conjunction with other means. Few, or no shocks, however, should be given; and, should it prove the least injurious, it ought to be immediately discontinued. Nervines may be given, and also the *restorative wine bitters.*

My prescription for a person, just called to visit, with a paralytical affection of the arm and leg, is as follows: *Cowage* sprinkled on flannel, and bound on the parts; *vegetable counter-irritating* plaster to the spine; *stimulating injections; restorative wine bitters*, with the addition of a little *capsicum* and alterative syrup. To which may be added *friction* and *electricity.*

REGIMEN.

In the palsy which arises in persons of a full habit, the diet should be light and spare; but when the disease proceeds from relaxation or debility, which is generally the case, or makes its attack at an advanced period of life, it ought to be invigorating and warm, being seasoned with spicy and aromatic vegetables, as *mustard*, *horse-radish*, &c. Exercise is of great importance in palsy; if the patient is capable of walking, he should take his exercise daily; but if deprived of the use of his legs, he ought then to be carried abroad in a carriage of some kind, and none more appropriate than chairs upon wheels, on account of the facility of placing the patient in them, and their being drawn about by an attendant. Flannel should always be worn next the skin, and cold, moist, or damp air be avoided. Friction may likewise be used.

CHAPTER IV.

ST. VITUS' DANCE. (*Chorea Sancti Viti.*)

DESCRIPTION.

This singular disease is characterized by a twitching and convulsive action of certain muscles, usually confined to one side of the system; and it affects principally the arm and leg. It is chiefly incident to young persons of both sexes, but particularly those of a weak constitution, or whose health and vigour have been impaired by confinement, or by the use of scanty and improper nourishment; and makes it attacks between the ages of ten and fifteen, occurring but seldom after that of puberty. By some physicians it has been

considered rather as a paralytic affection than as a convulsive disorder, and has been thought to arise from a relaxation of the muscles, which, being unable to perform their functions in moving the limbs, shake them irregularly by jerks

CAUSES.

This disease may arise from various causes ; from morbid condition of the stomach, as teething, worms, acidity in the bowels, offensive smells, violent affections of the mind, as anger, fear, &c. It may arise also from debility, and from extreme irritability of the nervous system.

SYMPTOMS.

" It is," says Sydenham, " a kind of convulsion which principally attacks children of both sexes, from ten to fourteen years of age. It first shows itself by a lameness, or rather unsteadiness, of one of the legs, which the patient draws after him like an idiot ; and afterward affects the hand on the same side, which, being brought to the breast or any other part, can by no means be held in the same posture for a moment, but is distorted or snatched away by a kind of convulsion into a different posture or place, notwithstanding all possible efforts to the contrary. If a glass of liquor be placed in the hand to drink, before the patient can get it to his mouth he uses a thousand odd gestures, not being able to carry it in a straight line thereto, because his hand is drawn different ways by the convulsions ; as soon as it has reached his lips, he throws it suddenly into his mouth and drinks it very hastily, as if he only meant to divert the spectators."

With these evidences of disturbance of the brain are usually united very unequivocal marks of a deranged condition of the stomach and bowels. A variable, and often ravenous, appetite, a swelling and hardness, or sometimes flabbiness, of the abdomen, with constipation, accompany, in a large proportion of cases, the onset of the disease. In its advanced periods we may observe impaired digestion, a very offensive state of the alvine evacuations, and flaccidity and wasting of the muscles throughout the body.

TREATMENT.

The indications in this complaint are :

1. To remove the exciting causes.

2. To remove the constipated state of the bowels, and regulate their functions.

3. To strengthen the general system.

First ; If, upon inquiry, the stomach is found deranged, administer an *emetic ;* this will evacuate the stomach, and impart new tone to it, as well as to the nervous system. The day after this emetic has been exhibited, a moderate *purgative* may be given, to be repeated weekly ; from the sympathetic effect of this class of medicines, they are very valuable in this complaint.

After having thus cleared the stomach and bowels, and created in them a more healthy action, give the *restorative wine bitters*, to which add half an ounce of the *red oxide of iron*. *Anti-dyspeptic pills* to be taken at night, and in sufficient number to regulate the bowels ; two or three every day or two are usually sufficient. They impart tone and energy to the system, while they carry off all feculent matter from the intestines. The feet should be occasionally bathed, as also the surface of the body, if the skin is usually

dry. The following infusion, used with the other means recommended, (and probably used alone,) is a specific in this disease; I know not of a single case in which it has failed to effect a cure: Take scullcap, (*scutellaria lateriflora*,) one ounce; boiling water, one quart; strain, and sweeten with loaf sugar. Let the patient drink of this freely through the day, and constantly to be drank alternately with the tea of *valerian* before-mentioned.

I have found this treatment invariably successful. One case occurred in a woman fifty years of age, who had had the complaint a length of time, had been treated by seven or eight physicians without benefit, and, after submitting to the use of the above remedies, (emetics excepted,) she recovered. The *scullcap* appears to have specific effects in this and most other nervous complaints.

Dr. Elliotson states, in the London Lancet, that he has cured several cases of chorea by giving two drachms of carbonate of iron every six hours. The dose was increased to half an ounce every six hours, given in molasses.

REGIMEN.

A diet that is nutritious and easy of digestion must be used, and everything calculated to excite mental affections avoided.

GASTRIC DISEASES.

CLASS VII.

CHARACTER.

Gastric diseases include such as are more especially or apparently located in the stomach, or have their origin in that organ.

CHAPTER. I.

CHOLERA MORBUS. (*Cholera Morbus.*)

DESCRIPTION.

Cholera morbus is a disease of the stomach and alimentary canal, characterized by vomiting and purging, with severe griping, pain, cramps in the stomach, abdomen, and extremities. It is very prevalent in this climate, particularly during hot weather, and much more so in the East and West Indies.

CAUSES.

The immediate exciting cause of the cholera morbus is, the action and stimulus of an *acid* secreted in the liver, or formed in the stomach and alimentary canal, and which produces an irritation of the mucous membrane of these parts, the same as many kinds of poison, and which cause the phenomena of the complaint; and this probably is the nitric or septic acid. Dr. Vought and (I believe) Dr. Mitchill entertained similar views. I have

read an author who speaks of the same effects following the use of certain kinds of fish, said to feed on copper banks, and which cause vomiting, purging, cramps, &c.; all which show conclusively that the cholera morbus is occasioned by some kind of poison. It is well known that corrosive sublimate, and other agents, have very similar effects on the system as are exhibited in this complaint. This poison is no doubt received into the circulation through the medium of the atmosphere; and, not being eliminated by the ordinary excretory organs, especially the skin, is thrown back from the surface to the liver, which becomes deranged and engorged with an accumulated quantity of blood, combined with a morbid fluid or acid, which proves the exciting cause of the complaint. There are very many predisposing causes, such as indigestible and irritating kinds of food and drink, crude or unripe fruit, and all articles that contain much acid, or such liquids as soon run into a state of fermentation; but causes of this kind rarely produce the disease, unless the system is predisposed to it by a debilitated state of the digestive organs, or by a general relaxation and exhaustion from the influence of great heat. Fermentation, which generates an acid, may be the immediate cause of this disease.

SYMPTOMS.

The cholera morbus generally comes on very suddenly. It usually commences with nausea and pain in the stomach, followed by severe griping and distress in the abdomen. These symptoms are immediately succeeded by vomiting and purging, which generally continue in paroxysms until great prostration follows. In the intervals between the periods of vomiting there is great sickness and distress at the stomach. The stools are at first thin and watery, and generally tinged with bile. After the disease has continued for a short time, the evacuations are very bilious. As the disease advances, the vomiting, retching, purging, and pain are severe and incessant. The peculiar feature of the complaint is a spasmodic affection of the abdominal muscles and extremities. The person is drawn up on every attack or in every paroxysm, often causing him to scream aloud with dreadful agony. The thirst is usually very great, but almost every liquid taken into the stomach is immediately ejected. As the disease progresses the pulse becomes small, feeble, and intermitting; there is coldness of the extremities, countenance pallid and expressive of great distress, a cold sweat breaks out, and great prostration follows.

Cholera morbus is a very common and dangerous disease, often proving fatal in twenty-four hours, and the malignant type of it in a few hours.

TREATMENT.

The principal indication of cure in this complaint is, to neutralize or destroy the acid, vitiated, or acrid bile; in other words, the exciting cause of the complaint. Some have recommended and prescribed emetics, and some purgatives; but I have no evidence of the utility of either, and I consider them very injurious. They both seem calculated to aggravate the disease, by continuing or increasing the vomiting and purging; although it is possible that a new action might be excited by the use of one or both, and in this way prove beneficial. The following treatment, I think I may say with propriety, I have found an infallible remedy for the cholera morbus, even in the last stages of it. When first called to a patient labouring under the complaint, my first object is, to allay the irritability of the stomach; not by

giving any medicine calculated to retain the morbid secretions, or to lock them up in the system, but by *neutralizing*, or rendereng inert and harmless, the deleterious agents, which are the immediate cause of it; and the neutralizing mixture fulfils this indication admirably: to a large teaspoonful of the powder add loaf sugar to sweeten, then add half a pint of boiling water, and, when nearly cold, two table-spoonsful of best brandy; of this give two table-spoonsful every half hour, or as often as the paroxysms or periods of vomiting and purging take place. In very severe cases I have occasionally added to every dose fifteen or twenty drops of *laudanum*. This must be repeated until the urgent symptoms are diminished. The effect of this medicine is truly surprising. So sudden and powerful is it, that I have often been delighted with its salutary effects. It is seldom that the patient will vomit up more than one dose of the medicine; it rests upon the stomach, calms the irritation, checks the nausea and vomiting, passes gently through the alimentary canal, changing their contents or faeces from the most morbid and fetid, to the most healthy state. While mercury, which is now given in such cases, only aggravates, this preparation acts divinely, and, I was about to say, might be compared to the act of extinguishing fire by pouring water upon it. Besides, the administration of this mixture, in case the disease is so severe as to render it imprudent to wait the short time that is necessary for the operation of it, an *opium pill* may be given. I have seldom, however, found this necessary. External applications must be used, and also the following: Take red or cayenne pepper, one table-spoonful; spirits, one pint; simmer a few minutes, then dip flannel in, and let it be applied warm to the stomach and abdomen, and also to the extremities, particularly if there are cramps. As a change, I have also applied *fomentations* of *bitter herbs* over the parts with decided benefit. *Hops*, simmered in vinegar, are excellent. These applications remove the tension and spasms so peculiar to this complaint.

Sometimes a greater portion of the disease seems concentrated in the intestines, or the umbilical region, occasioning very great distress, when it becomes necessary to administer injections. Should this be the case, or should there be such an assemblage of symptoms as require the application of several remedial agents to subdue them, the following injection must be given: Take mucilage of slippery elm bark, one pint; sweet milk, half a pint; molasses, half a pint; olive oil, one gill; bicarbonate of potash, a tea-spoonful; laudanum, a tea-spoonful; mix: introduce as much as possible; it has a very soothing effect upon the bowels, and generally in ten or fifteen minutes relieves the pain. Hot bricks may be applied to the feet, and they should be bathed in warm ley water. The patient should take freely of *mint tea*, *slippery elm*, and other mucilaginous drinks. Cold water poured upon bread toasted very brown or black, makes a very grateful and medicinal drink. *Indian* or *oat meal gruel* also has a very excellent effect upon the bowels in this disease; it acts as a soothing or emollient poultice to the stomach and intestines, while at the same time it affords nourishment.

I repeat, that the above practice is uniformly successful in cholera morbus; where it has been promptly tried, it has never, to my knowledge, failed in a single instance. I have been called upon when life was nearly extinct, and the patient has been drawn nearly double with the pain or spasms, and when the ordinary course of treatment, such as mercury, salts, senna and manna, &c., had only rendered the complaint worse; and, by pursuing the treatment here laid down, they have been immediately relieved, and in a few hours cured. I have just prescribed for a case of the cholera morbus, where

the person had been vomiting and purging three days, and had been attended by a physician without benefit. He had become almost senseless, with excessive prostration, and the evacuations passed off involuntarily. I administered the mixture first-mentioned, combined with a small quantity of *cinnamon* and *cloves;* in a few hours the disease was arrested, and he soon recovered. It is impossible for my pen to describe the great contrast between the common and the reformed practice, in this as well as other diseases; and, to be known, needs but to be tried. The treatment is founded upon a belief that the cause of the disease is an *acid*, and that the remedy is an *alkali*, and hence the *bicarbonate of potash* is given, and may be considered the *antidote*

SECTION I.

ASIATIC OR INDIAN CHOLERA.

The great *Asiatic or Indian Cholera*, which swept off so many thousands, and which often proves fatal in a few hours, appears to be only an aggravation of the common cholera, or a more malignant type of it. *Treatment*, the same, only more active; the warm bath and friction are excellent.

SECTION II.

CHOLERA OF INFANTS; OR, SUMMER OR BOWEL COMPLAINTS. (*Cholera Infantum.*)

DESCRIPTION.

This disease is the *cholera of infants*, which in some respects resembles that of *adults;* but differs from it in many respects. It is usually known by the name of the *summer or bowel complaint*, and is very prevalent among children during the summer season; it very often proves fatal.

CAUSES.

There appears to be three principal causes which produce this complaint:

1. A great degree of heat.
2. The impure air of crowded cities.
3. Dentition, or teething.

But the most common cause in children is, unripe fruit.

This disease is very seldom met with in the country, where the air is salubrious; but in cities it produces annually a most frightful mortality. It may be caused by a check of perspiration, causing the blood to retreat from the surface to the internal parts, and deranging the liver and mucous membrane of the intestines.

SYMPTOMS.

This complaint is usually characterized by fever, and commences in a gradual manner, with more or less diarrhœa; and, after a short time, it is attended with nausea, retching, and vomiting. The evacuations are very often

sive, apparently not very bilious, and consisting of a slimy, whitish, frothy, or nearly of a colourless, watery fluid. If the disease progresses for a short time, the child begins rapidly to waste. There is a coldness in the extremities, the skin is shrivelled and dry, and there is a preternatural degree of heat in the head and bowels. The face is very pale, the eyes dull and sunk, the pulse weak, irregular, and frequent. There is lethargy or drowsiness, and the child sleeps with his eyes partly open. There is considerable tossing or motion of the head when awake; and, if no remedy is administered, the child rapidly sinks into a state of great prostration and insensibility, and which proves fatal.

This complaint is liable to assume a chronic form, and become very much protracted; when this is the case, an almost incredible degree of emaciation follows: the child becomes a living skeleton; canker appears on the tongue and cheeks; the face and other parts bloat; and the discharges are extremely acrid, excoriating; and fetid.

The continuance of this disease is very various, depending upon many causes, such as air, diet, nursing, medical treatment, &c. It may prove fatal in a few hours, or it may last many months.

Where the disease has continued for a length of time, there is ulceration of the lining membrane of the stomach and bowels, showing conclusively that the disease is caused by the action of an acid or poisonous fluid acting upon these parts.

TREATMENT.

If called to prescribe for this complaint when there is vomiting, the first object is, to allay it; and this may be done by the exhibition of the *neutralizing mixture*, as in cholera morbus. It must be given according to the age of the child and the urgency of the symptoms; one or two tea-spoonsful to a child one year old, and repeated every half hour. This preparation is not only necessary in the stage of nausea and vomiting, but in any and every stage of the complaint; it acts mildly upon the stomach and whole alimentary canal, neutralizing acidity, while it evacuates the fetid and morbid accumulation, and brings on a healthy action, and thus improves the condition of the patient speedily and in an eminent manner. After repeated trials of all other kinds of medicine, I find this altogether superior to every other: it has a threefold effect; it corrects acidity, cleanses the stomach and bowels, while it restores their usual tone by its astringent qualities. It should be continued until the passages become healthy, which is usually the case as soon as it acts moderately upon the bowels, or as a laxative. In protracted cases of the disease it may be given four or five times through the course of the day. In this complaint injections or clysters are exceedingly valuable; they have a soothing and emollient effect upon the intestines; allaying pain and inflammation in a very remarkable manner. One may be administered whenever the child is very fretful and distressed. The following: Take an infusion or mucilage of slippery elm, half a pint; milk, half a pint; molasses, one gill; sweet, or olive oil, a wine glassful; common salt, half a tea-spoonful: mix, and introduce with a suitable sized syringe. There is usually, as before observed, considerable heat and swelling of the abdomen: for this symptom let a fomentation of hops be applied.

Particular attention must be paid to the state of the skin. If the disease is caused by morbid humours retained in the system and thrown upon the intestines, how necessary is it that they should be thrown off through the

proper excretory ducts? Therefore such means and medicines must be used as will divert the vitiated fluids from the centre to the surface. The feet and body must be often effectually bathed and rubbed with *weak ley water*, applied tepid; this will prove very cooling and refreshing, and lessen the violence of the disease. In order to promote gentle perspiration, as well as to allay irritation or pain, medicine should be given that has this twofold effect, which is the *diaphoretic powders;* and they are particularly serviceable when the child is wakeful, restless, and in pain; for a child a year old give a few grains in a little tea; if the desired effect is not produced in three hours, repeat the dose. Mucilaginous and cooling drinks are very useful in this complaint. The *benne plant* makes an excellant mucilaginous drink; a few leaves, dipped in a tumbler of cold water, immediately form a clear, tasteless, cooling, and soothing mucilage, which, it is stated, has cured hundreds of cases without any other preparation. The benne plant is annual, and very easily raised, by sowing a few seeds in the garden, in the spring, and should be kept in every family. When the disease assumes a chronic form, and proves very obstinate, additional means may be necessary to remove it. In such a stage of the complaint, after proper evacuations, give the *blackberry syrup*, and occasionally an *injection*.

This treatment has, in my hands, invariably cured the worst stages of this disease. My practice has been very extensive in it, and I can scarcely recollect a single instance of failure.

REGIMEN.

Arrow-root tea or jelly may be given, and mucilaginous drinks and liquid; panado, gruel, &c. The best diet for children afflicted with bowel complaints is, milk thickened with wheat, or, which is better, rice flour, to which a little cinnamon may be added. The child must be kept clean, clothes often changed, and, if possible, removed to a pure atmosphere.

SECTION III.

SICK STOMACH. (*Cholera Americana.*)

DESCRIPTION.

This is rather a novel disease, and seems peculiar to Ohio and other western states. It appears to be a complaint in which morbid bile or poison preponderates, characterized by heat, burning and sickness at the stomach, with retching and vomiting.

CAUSES.

It is difficult to say precisely what the cause of this disease is; some of the inhabitants of those places where it prevails suppose that it arises from an unknown vegetable poison, eaten by cows, and poisoning their milk butter, and cheese, and all those who eat of them.

SYMPTOMS.

The symptoms of this novel complaint are, disagreeable and sickening sensa

tions at the stomach, general debility and lassitude, succeeded by extreme loathing, nausea, and vomiting, or distressed retching to vomit; the vomiting returns every hour; the patient complains of great distress, and a burning sensation at the stomach. Hiccough and hot belchings are often troublesome. The tongue is slightly furred; the breath is very offensive, and has a peculiar and disagreeable smell. In more malignant cases the patient falls into a stupor, the eyes are protruded, and pupils dilated, with other symptoms of inflammation of the brain; with an occasional vomiting of black matter, which generally destroys the patient in a few days. The materials usually thrown out of the stomach consist of liquids that have been swallowed, which are hot, acrid, or sour when ejected; the patient is dizzy, trembles, and staggers; as also the animals seized with it.

TREATMENT.

To allay the irritability of the stomach, give the following: Bicarbonate of potash, one drachm; mint water, eight ounces: mix. A table-spoonful every hour may be taken. When the stomach is calmed or quieted, the *neutralizing mixture* may be given until it acts as a gentle purgative; after which let it be administered two or three times through the course of the day. Should this fail to correct the morbid state of the stomach, let the common purgative be administered, and occasionally repeated: smart weed tea is said to be a very valuable remedy in this complaint. If the disease does not yield to this treatment, it will be necessary to exhibit *emetics* occasionally, until a healthy state of the stomach is produced: the *common emetic powders* may be given; and, where circumstances justify, or there is nothing to contra-indicate it, the treatment may be first commenced by a gentle *emetic*

CHAPTER II.

WATER BRASH. (*Pyrosis.*)

DESCRIPTION.

This disease is known by a burning pain in the stomach, attended with copious eructations, generally of a watery and insipid fluid.

CAUSES.

Whatever deranges the functions of the stomach or the surrounding viscera, may give rise to the water brash; as indigestion, acidity, &c.

SYMPTOMS.

The fits of pyrosis usually come on in the morning and forenoon, when the stomach is empty; and the first symptom which the patient perceives is a pain at the pit of the stomach, with a sense of constriction, as if it was drawn toward the back; and this is usually much increased by an erect posture. The pain, after proving severe, and continuing for some time, is followed by eructations and the discharge of a considerable quantity of thin watery fluid, sometimes of an acid taste, but often quite insipid; in some

instances, however, it is very ropy, and of an appearance somewhat similar to the white of an egg. On a frequent repetition of the eructations and discharge, the fit at length goes off. This disease rarely proves fatal, but is often tedious and troublesome to remove, being apt to recur occasionally a long time after it has once taken place

TREATMENT.

The patient will commence with the following liquid: Take elixir salutis, or compound tincture of senna, eight ounces; tincture of the balsam of tolu, half an ounce: mix. Of this the patient will take a table-spoonful every morning, fasting; it creates a healthy action of the stomach, and thus soon mitigates the symptoms of the complaint. It is carminative, stimulating, laxative, and tonic in its effects, and, therefore, well calculated for the removal of this disease.

I recollect an instance where the person had applied to various physicians for a most obstinate case of water brash, and could find no remedy till he took the above preparation, which operated like a charm, soon effecting a cure. If this fails, take the *anti-dyspeptic pills*.

REGIMEN.

Great attention must be paid to regimen; nothing greasy or acid should be taken; only use such articles as are easy of digestion Red pepper, mustard, and salt may be taken with food.

CHAPTER III.

INDIGESTION. (*Dyspepsia.*)

DESCRIPTION.

Dyspepsia is a derangement of the digestive functions, occasioning an interruption in the organs concerned in the process of digestion; the immediate cause of which appears to be a diminished or increased quantity, or vitiated quality, of the gastric juice, or the secretion of bile.

CAUSES.

Whatever causes a derangement in the digestive organs may produce dyspepsia; the most frequent are, *intemperance in eating and drinking, and the want of exercise in the open air;* intense anxiety of mind, depressing passions, cold, the use of animal food, hot bread, pastry, tobacco, tea and coffee, superfluous evacuations, excessive venery, mercury, bleeding, obstruction in the liver and spleen: swallowing the food without chewing is a common cause. "Many in America," says an English traveller, Tyrone Power, "swallow their food with the rapidity of a wolf." Debility is a frequent cause of this complaint; also eating crude and indigestible substances.

Says a very eminent European surgeon, when speaking of the cause of this affection; "The foundation of this complaint is often laid in infancy and youth by the excessive employment of mercury, a preparation which is totally

uncalled for, but which has become very much in *fashion* of late years; and when the patient has fortunately escaped its use in early life, it has often proved a direct cause of indisposition at a later period. Mercury is a strong and peculiar stimulant (or poison) to the digestive organs, and, when repeatedly administered, impairs their natural energies, and exerts a very depressing and distressing effect upon the whole nervous system."

All these causes so weaken the coats of the stomach, that the latter becomes incapable of performing its office. It may occasion a morbid, deficient, or increased secretion of the gastric juice, or may produce inflammation of the mucous membrane which lines the stomach.

SYMPTOMS.

The symptoms of indigestion differ considerably, according to the stage of the complaint, or the degree and extent of the irritation. In the commencement the appetite is variable, generally weak, and often entirely destroyed; the patient is troubled with flatulency, distention, acid eructations, and colic pains; the mind is, at times, depressed and languid; the tongue covered with a white fur; the bowels usually constipated; the whole system languid, particularly during the process of digestion; and there is almost a constant uneasy feeling in the stomach. Sometimes the appetite is morbidly craving; but, if the patient indulges freely in taking food, he becomes much oppressed, and generally suffers severe pains some hours after eating. After the disease has continued for some time, or is aggravated by some unusual irritating cause applied to the stomach, the pulse becomes tense and quick; the epigastrium tender to the touch; the mind irritable, discontented, and gloomy. The colic pains are more frequent and severe some time after taking food; the bowels irregular, being sometimes constipated; at others affected with diarrhœa, during which portions of food are occasionally passed off in an imperfectly digested state; the stools vary in colour, consistence, and character. The body now begins to waste; the strength fails; the epigastric distress severe and constant; the countenance assumes a haggard and sallow aspect; the patient complains of more or less difficulty of lying on the left side; the skin becomes dry and shrivelled; and there is usually a morbid sensibility to low temperature.

From the extensive sympathies which subsist between the stomach and every other part of the living body, dyspeptics are frequently much harassed by painful and other distressing affections in parts situated remotely from the stomach. Among these sympathetic affections of indigestion, *headache* is the most common and annoying.

We may sum up the symptoms of dyspepsia as follows: Nervous debility, depression of the mind, oppression after eating, acid eructations, sick headache, costiveness, scanty and painful evacuations, jaundice, piles, female obstructions, heartburn, furred tongue, flatulency, distention of stomach and bowels, dizziness, sickness at the stomach, water brash, loss of appetite, pain in the side, and torpor of the liver and bowels.

TREATMENT.

The objects to be kept in view in the treatment of dyspepsia are,

1. To obviate the several exciting causes of it.
2. To expel from the stomach the several offending agents.
3. To obviate costiveness.
4. To improve the tone or energy of the stomach; and,

Lastly, to remove urgent or distressing symptoms.

The patient must abstain from every exciting cause which he is conscious has given rise to the disease, whether in eating or drinking, or any other irregularity.

The most important course to pursue in this disease, in order to remove the exciting cause and effect a cure, is, a rigid course of diet and regimen. Irregularity in these respects have formed it, and it follows that an opposite course of treatment is required, and indispensably necessary. It is useless to prescribe medicine without a strict adherence to such measures. A strict and undeviating course must be paid to *diet*, both in *quantity* and *quality*. Meals should be taken at regular hours, food and drink used sparingly. Excess and dissipation must be avoided; also late hours, indolence, wine, and ardent spirits, animal food, hot bread, pastry, &c. Exercise in the open air should be taken, and, if practicable, in the country. Early rising, and conversation only with virtuous persons. All sedentary habits to be avoided; likewise intense study and excessive venery. Avoid also one great propensity in dyspeptic persons, which is, to resort every day to different doctors or to take nostrums; this keeps the stomach all the time in motion, without giving an opportunity of testing any treatment or medicine. It is only by a very slow process the stomach resumes its lost functions; and the making a drug-shop of it must disturb its efforts to bring about a healthy action. *Bathing* in salt or other water daily, of a moderate temperature, is very useful; also the *shower bath*, and the surface well rubbed with a coarse towel. For removing from the stomach all offensive or morbid agents, an *emetic* may be given. The day after the emetic has been given, our *common purgative* may be administered; but in obstinate cases the *compound powder of mandrake* is far preferable; a moderate dose of either will be sufficient. It will be necessary to repeat each of these classes of medicines once a week, especially where the disease has been of long standing and inveterate. There is, in this complaint, such a tenacious viscid fluid, or state of the stomach, that every means to remove the complaint is apt to prove ineffectual, until there is a new or healthy action excited. No medicine appears to act upon the living fibre of the stomach, until its actions have been very much stimulated or inverted.

Emetics particularly prove beneficial in dyspepsia, first, by evacuating morbid or offending materials; and, second, by imparting new tone or energy to it; third, by their action upon the skin, by eliminating morbid or vitiated humours; and, fourth, by the healthy shock they give to the neighbouring organs and the whole system. Even where dyspepsia is complicated with organic or chronic affections of the liver, which is very often the case, and where mercury is supposed to be necessary to remove them, this kind of emetic, particularly when accompanied by mandrake, affords a substitute for this mineral. Where the liver has been much affected, I have found their exhibition very successful. In this case the *hepatic pill* may likewise be given.

The next great indication to fulfil in the treatment of dyspepsia is, to regulate the bowels. It appears that the liver in this disease, from debility, obstruction, or torpor from some cause, ceases to perform its office, or performs it very imperfectly; in consequence of which there is not a sufficient quantity, or a proper quality, of bile secreted to keep up a regular or peristaltic motion of the intestines; the effect of which is, a state of inactivity or costiveness; and, therefore, such medicines as stimulate the liver to perform its office are obviously indicated.

In addition to the emetics recommended, the patient must endeavour to regulate the bowels, if possible, by a course of *diet;* and there is no article so effectual as the coarse or *brown bread*, which is now in many places very much used. The bran, in which consists the physical properties of the wheat, is retained in making this bread, and which affords a more natural stimulus to the liver and alimentary canal than any medicine that can be given. The wheat should be ground coarse, but not bolted, and in all other respects made as ordinary bread. Some prefer biscuit made of the same.

I do not now remember a single case, however costive the bowels may have been, where this bread has failed to regulate them, as well as to improve the state of the stomach.

The next indication is, to improve the tone of the stomach.

The means already recommended are calculated to fulfil this object, but other medicines may be necessary; and I have found that the *anti-dyspeptic pills* are well calculated for this purpose; they first gently stimulate the stomach, while at the same time they cleanse and impart tone and energy to it, without causing that debility which so often follows the use of other preparations: they also serve to obviate costiveness; and have cured many cases of dyspepsia without the aid of any other medicines. Another most valuable tonic for indigestion, and which is likewise calculated to fulfil several of the above indications, is, the *restorative wine bitters*.

When the stomach has been cleansed the following pills may be given: Take pulverized ipecac, one scruple, or a tea-spoonful; add three times the quantity of castile soap, scraped fine: mix well together; and, if necessary, a little molasses or mucilage may be added; form into pills the size of a small pea, and take one or two three or four times a day: they ought not to produce nausea. Those who prefer may take the powder of ipecac, one or two grains, as often during the day; this strengthens the digestive organs and excites a gentle action on the bowels and skin. During the use of these pills the patient may take the following tea: Take *boneset*, *tansy*, *wormwood*, *hoarhound*, equal parts, make a tea, and drink a wine glassful, cold, three or four times during the day. I am now prescribing the above for a patient who has been a miserable dyspeptic for years, without any other medicine, with rigid diet, and who is constantly growing better.

Pain in the Side and Breast.—For these symptoms bathe the parts with the *rheumatic liquid;* also the spine, and particularly between the shoulders. A *strengthening plaster* may subsequently be applied. In some severe cases I have ordered repeated blisters on the side, and with much benefit: they should, however, if possible, be dispensed with. The *Irritating Plaster*, to the same parts, would probably do as well, or better, and give very little inconvenience. There is often great pain in the stomach from two causes, viz., indigestion and flatulence; to relieve which give the *compound spirits of lavender:* this usually affords immediate relief.

Acid in the Stomach.—Give our *neutralizing mixture*. An acquaintance of mine says he derived great benefit from taking the *super carbonate of soda*, a tea-spoonful in a little water, several times a day. Where many kinds of medicines have been tried without any advantage, it may be best to take none at all, and rely on diet, exercise, and the resources of nature.

With us this treatment has been very successful. A thousand other articles have been recommended, and many have I tried, but found little or no benefit resulting from them.

A Mr. Halsted, of this city, a short time ago became very popular for treating the dyspepsia; but his practice has now fallen into disrepute. It

consisted principally in suddenly thumping or striking upon the abdomen, and kneading it with the hand, with a view to remove the torpid state. Several have informed me that they received great benefit from this process; that it almost always had the effect of regulating the bowels: being very simple and easily put in practice, it may be tried with safety, and with a prospect of some advantage.

Mr. McChesney states that he cured himself by taking yellow dock tea, as follows: Yellow dock, one ounce; boiling water, one quart; boil one quarter away; then take one gill morning and night: it purges gently, or regulates the bowels, and is alterative. It has cured others.

Dyspeptic Ley.—Take of hickory ashes, one quart; common soot from the chimney, six ounces; boiling water, one gallon: mix, and let them stand twenty-four hours, frequently stirring the ingredients; a tea-cupful of this liquor decanted, to be given three times a day: it must be decanted at the end of twenty-four hours; by standing longer it becomes too caustic for use. This liquid was employed by Dr. Physick in his own case, and was of decided advantage when the common alkaline preparations were of no use.

Indian Remedy for Dyspepsia.—Take an emetic of lobelia, thirty grains, or am. ipecac; after its operation take a mild purgative of the culver's physic, about thirty grains; or of pulverized mandrake, about twenty grains; then of the powder of the inner skin of a wild pigeon's gizzard; take a teaspoonful three times a day, in molasses, syrup, or cold water. Drink freely of a tea made of pipsissiway, (*pyrolla umbellata.*)

REGIMEN.

There is no disease in which a rigid attention to diet is of more absolute importance than in dyspepsia: indeed the disease may be entirely cured by a proper course of regimen. The patient must eat no food that will not digest easily, which he must ascertain by his own experience: *he should always get up from the table with an appetite somewhat sharp;* whatever he finds will create flatulence, or cause uneasiness, must be carefully laid aside; and no animal food used. Coffee, tea, and chocolate should not be drank: cocoa shells, made the same as coffee, are very good.

Counter-irritating Plaster for the Spine.—"I have met with some hundreds of cases," says Dr McNair, "where the disease had resisted all common remedies, of fifteen or twenty years standing, which were readily removed by directing the remedies to the diseased nerves or the spine. The *Irritating Plaster*, which causes a little discharge, may be applied to the spine.

"Of the necessity of regular exercise to the due performance of the functions of the stomach, every one must be fully sensible: walking is, of all exercises, the best; it is that which nature intends for us, and can never be compensated by what are called the *passive exercises* of the luxurious. Pure air is eminently conducive to healthy digestion."

In dyspepsia a change of air, a voyage at sea, or a residence near the salt water, has been of great service. I know a man who was so far reduced with dyspepsia that he was carried on his bed from this city to the town of Westchester, about fourteen miles distant, on the banks of the East River; and, after remaining there a while, entirely recovered his health. No less important to the restoration of the dyspeptic patient is exercise on horseback, and change of place and amusing scenes, remembering that riding should be performed with an empty stomach, and the most proper hour is in the morning, before breakfast.

Dr. Abercrombie mentions an interesting case, showing the effect of vegetable diet in dyspepsia: "A gentleman had been for many years a martyr to stomach complaints, seldom a day passing in which he did not suffer greatly from pain in his stomach, with flatulence, acidity, and the usual train of dyspeptic symptoms; his mode of living had rendered it impossible for him to partake of vegetables without suffering severely: he had gone on in this manner for years, when he was seized with a complaint in his head, threatening apoplexy, which, after being relieved, showed such a constant tendency to return, that it has been necessary ever since to restrict him to a diet almost entirely of vegetables, and in very moderate quantities: under this regimen, so different from his previous manner of living, he has continued free from any recurrence of the complaint in his head, and has never been known to complain of his stomach."—*Abercrombie on diseases of the stomach.* The very moderate quantity of vegetables, no doubt, contributed to the cure.

It is a fact, that the great mass of the commonwealth not only use a diet too rich and stimulating in quality, but by far too much in quantity: and but a glance at the community will show that their penalties are meted out in the form of dyspepsia, liver diseases, dropsy, gout, and premature death. The tender mother wonders that her sinless offspring should suffer so much pain, and then be snatched from her embrace by a "mysterious providence;" when, in fact, the child only suffers the penalty of just and immutable laws, which her own pampering and indulgence have broken.

The stomach, like every other organ, requires rest after the performance of its labour; and yet how every mother will tell her dyspeptic son to "eat little and often:" oh! ruinous practice! "eat little and often!" the echo of these words has been the death dirge of thousands: ah! how does it ring upon the ear of the poor dyspeptic, and how does it hasten his progress to that grave which he so much dreads!

"Nowhere," says Dr. Andrew Combe, "does man hurry off to business so immediately as in the United States, and nowhere does he bolt his food so much as if running a race against time. The consequence is, that nowhere do intemperate eating and dyspepsia prevail to the same enormous extent. Rapid eating almost invariably leads to overloading the stomach; and when to this is added a total disregard of the quietude necessary for digestion, what can be expected to follow but inveterate dyspepsia?" In this case the stomach must perform the office of the teeth, which is well calculated to derange it.

Bilious Affections.—Many persons, particularly in the southern states and West Indies, are great sufferers from a redundancy of bile destroying the digestive organs. Such persons should depend upon prevention more than cure, and make use of that diet which will prevent the accumulation of bile; for example, *pepper sauce*, *mustard*, *stewed fruits* of various kinds, and sound or hard cider. Much exercise should be taken, to excite a healthy action of the digestive organs. It will be absolutely necessary to abstain from all kinds of greasy meat, sweet articles, pastry, and rancid butter; likewise *coffee* and *chocolate*, both of which increase these affections Costiveness must invariably be prevented. When a person is labouring under a bilious complaint, he may take a gentle emetic, or, as a substitute, a portion of *mandrake;* after which one or two of the *bilious pills* occasionally; also the *wine bitters*, and a tea made of the bark or berries of the *black alder*. *For diet, see bill of fare for invalids.*

CHAPTER IV.

CONVULSIONS OR FITS. (*Spasmi.*)

DESCRIPTION

The term convulsion is usually applied to all kinds of spasmodic affections, such as hysteria, epilepsy, &c. In treating of the complaint, I have in view fits or convulsions which often occur in children, and sometimes in adults, and which assume no specific character; frequently they proceed from the eruption in small-pox being retained or suddenly receding, or from teething, pregnancy, &c.

CAUSES.

Fits in children and others usually proceed from some acrid matter in the stomach and intestines, such as various kinds of poison, or from flatulence, teething, worms, recession of some kinds of rash, or the retreating of an eruptive disease, such as scarlatina, small-pox; sudden emotions of the mind, as fear, anger, &c.

SYMPTOMS.

Previous to an attack of convulsions in men or children, there is often great debility, with an unnatural appearance of the eyes and countenance. At other times there is a hasty accession of the complaint; the patient is suddenly seized with a spasmodic affection of the face, body, and whole extremities; trembles and shakes violently, and unexpectedly falls down, and remains senseless for a longer or shorter period; with involuntary twitchings of the muscles or tendons; the teeth clinched; and a discharge of saliva from the mouth; pupils of the eyes contracted, &c.

TREATMENT.

Where the attack is sudden and violent, put the patient in a warm bath; but as considerable time elapses before this can be prepared, the feet must be immersed in warm water, and the region of the stomach bathed with capsicum and spirits, simmered a few minutes together. If there is time, an injection or clyster may be given. It is difficult to introduce any medicine during the paroxysm; but, after it is over, means must be used to prevent their recurrence. If the disease appears to exist from acrid or foul matter in the stomach give an *emetic*, and afterward a dose of *senna* and *manna*. A decoction of common mullein is said to be an excellent remedy for convulsions in children. If they appear to proceed from worms, give medicines to expel them.

Should fits arise from a recession of rash, or from the invasion of some eruptive disease, excite perspiration to aid their reappearance. A little salt and water will afford immediate relief, and shorten the fit.

When they arise without any apparent cause, and occur at different intervals, they must be treated by giving *emetics* and *tonics;* in other respects treated the same as epilepsy. When other means fail, give the *tincture of stramonium* and *hyoscyamus*. In one very severe case, where the infant had several hundred fits, the *tincture of opium* cured it; the dose was gradually increased.

CHAPTER V.

CRAMP IN THE STOMACH.

DESCRIPTION.

This is a violent and painful disease, generally attacking persons very suddenly, and is extremely dangerous. Weakly and nervous constitutions are the most liable to it. It may arise from acrid matter, or from a check of perspiration.

TREATMENT.

Friction should be immediately employed over the region of the stomach, and continued until a preternatural degree of heat is produced and the pain subsides. I am, from experience in my own person, enabled to vouch for its utility. I was once suddenly seized in the night while in the country, where little aid or medicine could be procured. It occurred to me that friction would afford relief, and I therefore requested a person, sleeping in the adjoining room, to rub my stomach and breast as hard as possible, which he did; as soon as the friction occasioned heat, the pain began immediately to subside.—(*See principles of our Practice.*) Should this, however, prove ineffectual, half a tea-spoonful of red pepper may be given in half a tumbler of water or tea; at the same time let *mint* or *peppermint tea* be given, or, as a substitute, any common herb tea. The feet must also be bathed in warm water, and red pepper and spirits be applied, hot, over the region of the breast. Should this fail to afford relief, apply a heated brick, covered with muslin, and wet with vinegar, to the breast, as hot as can be borne. This also has removed a severe cramp or pain in the breast, when other means have failed. The person attacked may also take a tea-spoonful of equal parts of *laudanum*, *essence of peppermint*, and *spirits of camphor*. An excellent remedy for cramp in the breast is, to take ten drops of the *essential oil of hemlock* in a little tea, sweetened; at the same time apply *hops*, simmered in vinegar, to the stomach or chest. Give the *stimulating drops*, or a tea made of *capsicum*. The above medicines to be given and varied as occasion requires.

CHAPTER VI.

HEARTBURN. (*Cardialgia.*)

DESCRIPTION.

This disease is an uneasy sensation about the part called the pit of the stomach; it is attended with great anxiety, difficulty of breathing, want of strength, inquietude, vomiting, coldness and trembling of the extremities. Those whose stomachs abound with acid, or with bilious disorders, are the most subject to this complaint.

CAUSES.

The causes are various, as wind, acid, and other acrimonious humours in

the stomach; it may arise from debility of that organ, or a loss of its mucus; worms; and frequently spicy and pungent food; or a transition of rheumatism or gouty humours to the stomach, or an ulcer in any part of it. It may be occasioned by fat meats, especially if cold liquors are drank too soon after. If it proceeds from bilious matter, it is attended with bitter and nauseous eructations or belching, as well as by a yellow or greenish discharge by vomiting; collections of blood about the region of the stomach; plethora, or spasms.

TREATMENT.

Where the complaint appears to proceed from acidity or sourness of the stomach, with belching, heat, pain, &c., the *carbonate of magnesia* is a good medicine; from a tea-spoonful to a table-spoonful may be occasionally taken in a tumbler of *mint tea*. Should this fail to remove the disease, a mild *emetic* may be given, succeeded by a purgative. If it proceeds from wind, give a tea-spoonful of the compound spirits of *lavender*. The *neutralizing mixture* is also very good.

The food should be such as is very easy of digestion.

CHAPTER VII.

CANKER, THRUSH, OR SORE MOUTH. (*Aphthæ.*)

DESCRIPTION.

This is a disease to which children more particularly are subject.

It appears in small white ulcers upon the tongue, gums, and around the mouth and palate, resembling small particles of curdled milk. When the disease is mild, it is confined to these parts; but when violent, and of long standing, it may extend through the whole course of the alimentary canal, from the mouth down to the anus, and excite severe purgings, flatulencies, and other disagreeable symptoms. The disease, when recent and confined to the mouth, may, in general, be easily removed; but when of long standing, and extending down to the stomach and intestines, with improper treatment, it very often proves fatal.

The thrush sometimes occurs as a chronic disease.

CAUSES.

Retention of acrid humours, turned inward upon the mouth, stomach, and intestines.

SYMPTOMS.

It shows itself at first by an uneasy sensation, or burning heat in the stomach, which comes on by slow degrees, and increases gradually in violence. After some time small pimples show themselves on the tip and edges of the tongue, which at length spread over the whole inside of the mouth, and occasion such a tenderness and rawness that the patient cannot take any food of a solid nature; neither can he receive any vinous or spirituous liquor into his mouth without pain: it is accompanied with a dry skin,

pale countenance, small pulse, and cold extremities. These symptoms will probably continue for some weeks, the general health being sometimes better and sometimes worse ; and then the patient will be attacked with acrid eructations or severe purgings, which greatly exhaust his strength, and produce considerable emaciation of the whole body. After some time these symptoms cease, and he again enjoys better health ; but sooner or later the acrid matter shows itself once more in the mouth, with greater violence than before, and makes frequent translations to the stomach and intestines, and so from these to the mouth again, until at last the patient is reduced to a perfect skeleton Elderly people, and persons with a shattered constitution, are most liable to its attacks. Infants are subject to an inflammatory affection of the mucous membrane of the alimentary canal, generally classed as a species of diarrhœa, but known also by the name of aphtha or *the thrush*, from a symptom which attends it in one of its stages. It chiefly occurs between the fourth and eighth months, and among such as are fed wholly or partially upon spoon-meat. There is reason to believe that it is always connected with an improper diet. It is characterized by vomiting, fetid eructations, pain, diarrhœa, and some degree of tenderness of the belly on pressure. The stools are green and slimy, or tinged with blood ; frequently they are ejected with great force. As soon as any food is taken into the stomach the child has a motion, giving an appearance as if it passed immediately through the bowels. As the disease advances the tongue becomes red, the mouth is covered with aphthæ, and the verge of the anus appears inflamed ; the brain also becomes affected. The child is frequently drowsy before the aphthæ appear ; this symptom is vulgarly called "sleeping of the thrush." Drowsiness is occasionally observed to come on toward the termination of the complaint. The infant rapidly emaciates.

There is a peculiar and painful sore mouth or canker incident to nursing women, and which extends throughout the whole intestines ; it assumes a very obstinate character. This and the other kinds proceed from acrid secretions, which cause an inflammation of the lining membrane of the stomach and bowels.

TREATMENT.

When the disease is seated it may sometimes be necessary to give a gentle emetic, but, in general, purgatives are sufficient : the *neutralizing mixture* or cordial may be taken until it acts upon the bowels, to be occasionally repeated ; and let the mouth be washed with the following gargle : Take sage, hyssop, sumach berries, equal parts : make a strong decoction, sweeten with honey, and to half a pint of it add half a tea-spoonful of *pulverized borax :* let the mouth be often washed with this. The child should take for nourishment Indian meal gruel, milk, &c. A tea made of the *red raspberry leaves* is also good for this complaint.

I lately prescribed *ipecac pills* to an adult for a case of canker, which soon effected a cure without any wash ; one pill containing two or three grains was given three times a day. For the sores in the mouth apply *pulverized burnt allum.*

During the revolutionary war the following gargle cured all cases of *canker* and *putrid sore mouth*, which was then very prevalent, and previously carried off many persons : Take white oak bark, *white elm bark*, (not slippery elm,) high blackberry root bark, bark of the root of sumach, nanny berry bark, black snake-root, (it is a small, black, bitter root :) bruise and boil all

together, and make a strong decoction; then add a piece of allum, sweeten with molasses, and bottle for use: gargle the throat and wash the mouth. The complaint may first grow a little worse. This, it is stated, cured all. It must be excellent for all kind of ulcers.

The following preparation cured a very severe case of canker: Gold thread, one quarter of a pound; add one quart of water, boil out the strength, strain: add one quarter of a pound of sugar, (loaf,) simmer to three gills; add French brandy to preserve it: dose, half a wine glassful two or three times a day: keep the mouth and stomach moist with it: in some cases it might be best to omit the brandy. In very obstinate cases, where other means fail, use the following liquid: *Muriatic acid*, ten drops; rose water, twenty drops: mix; apply a drop to each ulcer once or twice a day.

CHAPTER VIII.

MILK SICKNESS.

This complaint is supposed to arise from some poison eaten by cows, which is communicated to the milk and butter. When this is taken into the stomach the annexed symptoms follow: Sometimes languor and lassitude are felt for some days previous to the attack of this disease, with putrid tongue and very offensive breath; at other times it comes on suddenly, with severe vomiting, thirst, and burning at the pit of the stomach, and obstinate costiveness, &c. The cattle that eat it quiver, stagger, and die within a few hours. It often proves fatal to man and beast. When dogs, crows, cats, fowl, &c., eat the animals that die of it, it kills them. Dr. Graffs, of Illinois, states that hundreds of persons perish annually in the west and south-west. The butter and cheese manufactured from infected cows are supposed to possess the most concentrated part of this poison, yet they appear precisely the same as healthy articles.

TREATMENT.

First give an *emetic*, after which the *neutralizing mixture*, and treat it in other respects as the *cholera morbus*. A mustard plaster may be applied to the stomach, injections given, and perspiration promoted. Should vomiting continue, a tea-spoonful of *salt* can be given every two hours in equal parts of hot water and vinegar: *toasted bread* water and *mint* tea are good. Dr. Jones highly recommends *smart weed* tea.

"The greatest difficulty," says Dr. Levi Houston, of Columbus, Ohio, "seems to be to relieve the spasmodic affection of the stomach, so that medicine can be retained upon it. My course has always been, to give weak lobelia tea to take off the tension of the stomach, and injections to relieve the bowels; then apply the steam to relax the surface; and, when this is properly done, give lobelia, so as to produce thorough vomiting, that the stomach may be relieved of all irritating matter in it; and, as soon as the stomach is settled, give physic enough to operate freely on the bowels; the operation will be quicker and more effectual if the patient be kept in a gentle perspiration. After the physic has operated, if the stomach does not feel clear of weight and soreness, give another emetic, with steaming

and toning the surface, as one course will do more good after physic has operated well, than two courses would before. Generally, when lobelia operates thoroughly, there is a dark substance thrown from the stomach like coffee-grounds, which gives immediate relief; and, by giving laxative bitters sufficient to keep the bowels open, the patient is soon well."

This complaint has been briefly treated upon in a preceding chapter; but, being very important, and having obtained some additional information respecting it, I have deemed it advisable to add the above remarks.

CHAPTER. IX.

VOMITING. (*Emesis.*)

It is sometimes the case that persons are taken with vomiting without any apparent cause, and when it does not proceed from other complaints, or, in other words, is not a symptomatic disease. The stomach, from various causes, becomes irritable, and everything taken into it is ejected: when this is the case, and it does not apparently proceed from some particular disease, our attention must be directed exclusively to the symptom of vomiting. A solution of sal æratus should be frequently given; a drachm may be added to eight ounces of *mint water*, and a table-spoonful given as often as retching, nausea, or vomiting occurs; or the *neutralizing mixture*. Should not this check it, give equal parts of *essence of peppermint*, *laudanum*, and *spirits of camphor*, twenty drops of each, in *spearmint tea*. An infusion of *peppermint* may be occasionally drank. The common *soda powders* are often sufficient to put a stop to ordinary vomiting. If the complaint is very violent, apply *mustard paste* over the region of the stomach. The following plaster has also been found very effectual in allaying the irritability of the stomach: Take equal parts of *cloves*, *nutmegs*, *alspice*, and *ginger;* pulverize, and add sufficient *Indian meal* and *vinegar* to form a *plaster*, to be applied to the pit of the stomach: bathing the feet has also an excellent effect. When all other means fail, the exhibition of an *opium pill* has stopped the vomiting. I have also succeeded by withholding all kinds of liquids and drinks, and by giving injections, to which half an ounce of *laudanum* has been added: cases, however, seldom occur in which these last remedies are called for.

A physician related to me the following case: He had administered *antimony*, which had a very unfavourable effect; it operated with great violence, and very much prostrated the patient: the retching or vomiting continued incessantly, till the patient appeared to be in a very dangerous situation, being almost speechless and pulseless. He first administered sling, (brandy, water, and sugar,) to check the vomiting, but it was immediately rejected; he then gave equal parts of *peppermint* and *laudanum*, which was retained upon the stomach, and checked the vomiting. He afterward administered spirits, which raised the pulse, and the woman soon recovered.

The physician who communicated the above account, states, that such was the operation of the medicine (*antimony*) that he has never given another dose of it since.

CHAPTER X.

HICCOUGH. (*Singultus*)

The hiccough is a spasmodic or convulsive affection of the stomach and midriff, arising from any cause that irritates their nervous fibres. It may proceed from excess in eating or drinking, or eating too fast; an injury of the stomach; poisons, wind, &c.; inflammations of the stomach, intestines, bladder, midriff, and the rest of the viscera. When the hiccough proceeds from the use of aliment that is flatulent or hard of digestion, spirituous liquors will generally remove it. If poison be the cause, plenty of oil and milk must be drank. Should the hiccough not cease; give ten or fifteen drops of laudanum, to be occasionally repeated. It sometimes proceeds from flatulence or wind; when this is the case give fennel-seed tea, *lavender compound*, and *carminative drops*.

CHAPTER XI.

SEA SICKNESS.

Sea sickness is a nausea or tendency to vomit, which varies, in respect of duration, in different persons upon a sea voyage; with some it continues only for a day or two, while with others it remains throughout the voyage.

Sea sickness appears to depend on the peculiar excitement of the brain, occasioned by the swinging or rocking motion of a vessel at sea.

The symptoms of sea sickness are so familiar, that they require no description. It is a very distressing complaint, and in some habits peculiarly so, sometimes even proving fatal; invariably attended with a dizziness of the head, great distress in the stomach, nausea, with vomiting and purging of bilious matter, resembling very much in its character cholera morbus. Likewise accompanied with great prostration. It, however, is generally very beneficial.

TREATMENT.

As soon as a person begins to feel sick at sea, let him place himself in the open air on the deck, and in a recumbent position; this contributes much to allay the symptoms: but if it cannot be practised by reason of the weather or other causes, let him lay in a birth, in the middle of the vessel, with his head toward the prow or forepart, being less motion there. I have practised this myself with very great benefit. Should the sickness continue severe, take a solution of *sal æratus* or *bicarbonate of potash*, in proportion of a teaspoonful to half a pint of water; a small table-spoonful can be taken whenever there is retching or vomiting, or the *neutralizing mixture* may be used. Should this fail to allay it, take essence of peppermint, twenty drops; laudanum, twenty drops: mix; the whole at a dose, to be occasionally repeated. When the vomiting first commences, a weak infusion of chamomile tea may be taken. A sea captain recommends old *Jamaica spirits*, with little or no water. Best French *brandy* is also very good, and a little physic may be useful.

I prescribed for a lady about to depart for France, and who was in the habit of being so sick that she vomited blood. I received a letter from her on her arrival, stating that she had received great benefit from my prescription

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INTESTINAL OR BOWEL DISEASES.

CLASS VIII.

CHARACTER.

THIS class of diseases is characterized by more or less pain in the abdomen, nausea, vomiting, prostration of strength, and fever, with either costiveness or copious evacuations.

CHAPTER I.

DYSENTERY. (*Dysenteria.*)

DESCRIPTION.

THIS is an affection or inflammation of the alimentary canal, characterized usually by nausea, pain, fever, tenesmus, with fetid or bloody evacuations. It is attended with more or less fever, and is sometimes contagious.

CAUSES.

Whatever has a tendency to obstruct perspiration may give rise to this complaint. Morbid humours are retained in the circulation, mixed with the blood, and thrown upon the intestines, causing irritation, inflammation, and all the phenomena of the disease. Unwholesome diet, night air, damp beds, wet clothes, &c. It sometimes appears to be caused by contagion, becoming epidemic in jails, camps, hospitals, ships, &c. Sudden change of weather, with humid or moist air, may act as a predisposing cause of the disease.

Proximate Cause.—It would appear that the immediate exciting cause of the dysentery is, a peculiar acid, the same as in the cholera morbus, which is secreted by the liver, and which corrodes and irritates the mucous membrane of the intestines; as nitric or other acids.

SYMPTOMS.

An attack of dysentery is sometimes preceded by loss of appetite, costiveness, flatulence, sickness at the stomach, and a slight vomiting, and comes on with chills, succeeded by heat in the skin, and frequency of the pulse. These symptoms are, in general, the forerunners of the griping and increased evacuations which afterward occur. When the inflammation begins to occupy the lower part of the intestinal tube, the stools become more frequent and less abundant; and, in passing through the inflamed parts, they occasion great pain, so that every evacuation is preceded by a severe griping, as

also a rumbling noise. The evacuations vary both in colour and consistence, being sometimes composed of frothy mucus, streaked with blood, and at other times of an acrid watery humour, like the washings of meat, and with a very fetid smell. Sometimes pure blood is voided; now and then lumps of coagulated mucus, resembling bits of cheese, are to be observed in the evacuations, and in some instances a quantity of purulent matter is passed. Frequently the discharges consist merely of mucus, without any appearance of blood. While the stools consist of these various matters, and are voided frequently, it is seldom that we can perceive any natural fæces among them; and, when we do, they appear in small hard balls, which being passed, the patient experiences some temporary relief from the griping and tenesmus. From the violent efforts which are made to discharge the irritating matters, a portion of the gut is sometimes forced beyond the rectum, which, in the progress of the disease, proves a troublesome and distressing symptom; as does likewise the tenesmus, there being a constant inclination to go to stool, without the ability of voiding anything, except perhaps a little mucus. More or less fever usually attends it, with the symptoms which have been described, throughout the whole of the disease, where it is inclined to terminate fatally; and is either of an inflammatory or putrid tendency. In other cases the febrile state wholly disappears after a time, while the proper dysenteric symptoms probably will be of long continuance; hence the distinction of *acute* and *chronic* dysentery.

TREATMENT.

Indications of Cure.—1. Correct the acrimonious state of the fluids, (the exciting causes of the complaint,) and cleanse the alimentary canal.

2. Remove urgent symptoms, by allaying the irritation and spasms.

3. Sheath the irritated portions of the intestines by mucilaginous substances, injections, &c.

In the cure of the ordinary forms of dysentery, such medicines must first be given as will cleanse the stomach and bowels, astringe and restore their tone; but active cathartics should never be employed. To fulfil these indications, there is no compound so valuable as the *neutralizing mixture*; compared to this, all other medicines sink into insignificance; it has a specific effect which no other known agent possesses, and it seems as though the Author of Nature had designed it especially for this and similar diseases.

It is really a subject of astonishment to me that physicians, with this medicine, or the basis of it, before them, should neglect to use it, and substitute poisonous minerals in its place. The following is the preparation, which I first administer in every stage of dysentery: Take best Turkey rhubarb root, bruised; sal æratus, or bicarbonate of potash, pulverized; peppermint plant, pulverized; cinnamon, pulverized; of each two scruples, or a small tea-spoonful: mix; rub in a mortar; then add half a pint of boiling water; strain, and add sufficient loaf sugar to sweeten; and, when cool, if there is no fever, add two table-spoonsful of best French brandy. Of this preparation give a table-spoonful every hour, until the passages are changed in their appearance and consistence.

The *alkali* neutralizes the acidity of the stomach, while the rhubarb, by quickening the peristaltic motion of the intestines, carries it to the seat of the disease, and removes the morbid collections in them, and restores their tone. The peppermint also lessens the irritation, while the loaf sugar and brandy

are valuable auxiliaries. It should be repeated according to the urgency of symptoms, duration of the disease, and other circumstances; but generally, after it has once acted upon the bowels, a table-spoonful given three or four times a day is sufficient, or it may be given at intervals, as required. This medicine in a short time entirely changes the complexion of the disease: it relieves the spasms and tenesmus; corrects and lessens the fetid discharges; and, in short, brings about a healthy action throughout the whole extent of the intestines. Other means, however, are sometimes necessary to remove the disease. After this preparation has acted upon the bowels, there may still be inflammation and irritation in the colon, which require other means to subdue them, and the most powerful are *injections* or *clysters*. Give the following: Take mucilage of slippery elm bark, one pint; milk, one pint; olive oil, a wine glassful; molasses, half a pint; common salt, fine, one tea-spoonful: mix; and let it be introduced warm, with a large French syringe, to be repeated as often as the patient complains of much pain. If the spasms, or pressing down, or pain be very great, a tea-spoonful of laudanum may be added to the injection. Usually, in ten or fifteen minutes after one of these injections are given, there is a mitigation of the urgent symptoms; it sheathes the irritated portion of the intestines, and thereby lessens the inflammation. It very speedily relieves griping and tenesmus. I have sometimes known the disease so centred upon the lower portion of the bowels, that I have had to depend almost exclusively upon injections for a cure.

I now recollect one case where all medicine proved useless; but, upon the use of the above injection, the patient immediately recovered.

It is necessary also, in almost every stage of the complaint, to keep up a gentle perspiration or moisture of the skin. As the disease is sometimes occasioned by translations of morbific matter to the intestines, means must be used to throw them off by the excretion of the skin: for this purpose *diluent* and *sudorific* drinks may be given; and, when the bowels have been well cleansed, eight or ten grains, or half a tea-spoonful, of the *diaphoretic powders* can be given, particularly at bed-time; while they serve to produce perspiration, they relieve pain and procure sleep. If there is much febrile excitement; if the skin be dry and husky, attended with thirst, the surface must be often bathed with *tepid ley water*, and also the feet. As soon as the cutaneous vessels have become thus stimulated, a portion of the morbific agents are translated from the mucous membrane of the intestines, and expelled through this medium. Copious perspiration, however, is not called for in the complaint; a general and uniform moisture of the skin is all that is required. When the pain is located more especially in one particular part, or where there is very great distress accompanying the disease, *fomentations* will be found a valuable auxiliary.

The following may be applied: Take hops, tansy, hoarhound, and catnip, a handful of each; boil in vinegar, enclose in a flannel bag, and apply to the abdomen or belly; to be often renewed: they divert the humours from the intestines to the surface, and assist to remove pain, spasm, tension, &c. Mucilaginous drinks are beneficial in dysentery, such as an infusion of *slippery elm bark, benne plant, &c.*; they may be given alternately, as the stomach of the patient will bear. The slippery elm is decidedly the best article, as it possesses very soothing and cooling properties: a tea-spoonful of the superfine flour of the bark may be stirred into a tumbler of cold water, and the whole or part given, as the patient is able to take it; three or four tea-spoonsful may be given through the course of the day. Should the putrid symptoms appear, a wine glassful of yeast, mixed with a little milk and loaf

sugar, may be given occasionally through the day, and about a gill of it added to every injection.

With me this treatment has been attended with unprecedented success, never having lost a case of dysentery in all my practice. The remedies are prompt, energetic, and sovereign.

In protracted and unusually obstinate cases, a syrup made of the *blackberry root* may be used. It has effected a cure when all other means have proved unavailing.

Dr. Perkins' last remedy (so called) for dysentery is, good vinegar, and as much salt as it will dissolve; add one table-spoonful of it to four of hot water, and let it be taken by spoonsful, as fast and as hot as it can be swallowed. This dose is to be continued once in two hours till it operates as physic. It is said to be a sovereign remedy in dysentery.

REGIMEN.

Good nursing in this, as well as in other diseases, is very important. The excrements should be immediately removed, and buried under ground. Change the clothes often, and admit fresh air into the room. Great attention to diet. The following is good: Take a table-spoonful of wheat flour, and add cold water sufficient to moisten it; then add one pint of milk, boil for fifteen or twenty minutes, remove from the fire, sprinkle in a small quantity of cinnamon, and sweeten with loaf sugar; let it be taken in moderate quantities through the day.

Cold water, with wheat bread well toasted put into it, makes a very good drink. The best diet in dysentery and bowel complaints is rice, the flour of it, if it can be procured, to be scalded in water, and then boiled in milk. The editor of the New York Farmer informs me that this proved more serviceable to him than all the medicines which he had taken.

A short time since I was called to prescribe for two of the worst cases I ever treated. One was that of Mr. Tucker, of Williamsburg, L. I. He had been suffering under this disease for some time, and reduced so low that his life was dispaired of. Blood, mucus, and matter almost constantly passed his bowels; with fever and great prostration; his stools so fetid that it was difficult to remain at his bed-side; and he was so far gone that he paid no attention to me. He had two physicians, *Cooke*, of that place, and Dr. McClay, of *New York*, both of whom pronounced him incurable. One said "that he could not live twenty-four hours;" the other, that "neither man nor medicine could save him." Cooke, the family physician, (should I not rather say *quack*?) had *bled* him, given him *mercury*, and, as it did not salivate him, was about to rub the body with *mercurial ointment*. As an experiment, at the request of his friends, and in this almost hopeless state, I prescribed for him as above; an immediate amendment took place, and, to the astonishment of all, he has recovered. The ignorant and unprincipled person (I will not say physician, for he does not deserve the name) who treated him, had the effrontery, not only to slander me for curing Mr. Tucker, but likewise to allege that his mercury had begun to take effect; thus imputing the cure to the poison and treatment which had injured, if not nearly killed him.

Another very interesting case occurred a few days since. Mr. Martyn, a minister of this city, called upon me about one o'clock at night, and stated that his daughter was very bad with the dysentery, and requested me to visit her. I went, and found her in a critical and dangerous situation. Every

few minutes blood and matter passed the bowels, attended with such pain that her cries could be heard from the back-room to the street. She had been attended by five physicians, two homeopathists and three allopathists During eleven days neither class had prescribed anything to correct or evacuate the morbid secretions; and I never saw a greater want of skill and science than was exhibited in this and the preceding case. Under the treatment already detailed the patient recovered rapidly, and is now well. In these cases there were symptoms of mortification, and I gave a quantity of *yeast*, mixed with milk and loaf sugar. Mr. Martyn, who was greatly distressed about his daughter, stated to me that "he had prayed to the Lord for direction," and that he was led to the reformed practice of medicine. Will mankind ever get their eyes opened on the subject of medicine, or will they always continue to be humbugged?

SECTION I.

CHRONIC DYSENTERY

It is sometimes the case that the *acute* runs into a *chronic form*, arising from ineffectual struggles in the system to excite a healthy action; or it may take place from errors in diet, check of perspiration, &c. The pulse in this form of dysentery is generally somewhat accelerated; the patient very feeble; the appetite impaired; the bowels deranged; unnatural evacuations, with tenesmus or "pressing down;" the countenance pale, or assumes a yellowish tinge; the skin dry and husky, and the face sometimes bloats; the patient becomes emaciated, and the discharges are very frequent and fetid, and sometimes general dropsy intervenes. Dissections show that the mucous membrane is the seat of the disease: it becomes thickened, rough, ulcerated, and covered with pustules, and sometimes it is gangrenous.

TREATMENT.

The treatment in this disease is somewhat similar to that recommended under the acute form of dysentery. The preparation of rhubarb and potash, first-mentioned, may be given daily; a table-spoonful three or four times in the course of twenty-four hours. At the same time the following might be given: Bayberry bark, wild cherry, cinnamon, nutmeg, alspice, cloves, and capsicum, equal quantities; pulverize all, and mix: put a tea-spoonful into a tea-cup, add a little loaf sugar, and fill nearly full with hot water. Drink the whole; repeat two or three times a day.

The above may be taken during the day, morning and evening; and at bed-time equal parts of fine *charcoal* and *magnesia*, a table-spoonful in milk or syrup.

Should the above treatment not prove effectual, the *blackberry syrup* must be taken, and occasionally an *emetic* administered. Injections to be given often.

The diet should consist principally of thickened milk and rice.

CHAPTER II.

SUMMER COMPLAINT OR LOOSENESS. (*Diarrhœa.*)

DESCRIPTION.

This disease is characterized by frequent discharges from the bowels, with a pressing down, or disposition to evacuate their contents. It is attended with more or less griping, but generally without much fever.

CAUSES.

Whatever increases the action of the intestines may produce the disease; such as improper food, or irritating substances; or it may be occasioned by bile of an acrid or vitiated quality.

It may also be occasioned by a suppression of perspiration, worms, crude and unripe fruits, acids, &c. In some habits there is a variety of agents which will bring on this complaint; but probably the most common of all is unripe fruits, and too great quantities of any kind; also retained perspiration and vitiated agents or humours, which, not being expelled by the skin, are thrown upon the liver and the mucous membrane, causing a vitiated or unhealthy secretion of bile and mucus.

SYMPTOMS.

In diarrhœa each discharge is usually preceded by a murmuring noise and flatulence in the intestines, together with a sense of weight and uneasiness in the lower part of the bowels. The appearance of the stools are various; sometimes they are thinner than natural, from the admixture of a larger quantity of fluid poured out by the exhalents of the intestines than common; sometimes slimy and green when first discharged, and are of a dark brown colour, and very fetid. As the disease advances the stomach becomes affected, and sickness, nausea, and vomiting occasionally prevail; the countenance turns pale, and the skin is dry and rigid. If it continues for any length of time, universal emaciation, dropsy of the lower extremities, and relaxation of every part ensue, together with a great loss of strength.

TREATMENT.

In the treatment it will be necessary to attend to the following indications:

First; To obviate or remove the morbid cause.

Secondly; To restore the impaired tone of the parts.

When diarrhœa has arisen from excess or repletion, or from crude and acrid matter in the stomach, the first indication may be answered by giving a gentle emetic in the evening, and an aperient the succeeding morning. If it has proceeded from obstructed perspiration, in consequence of exposure to cold, we must then endeavour to restore this by diaphoretic medicine. It is very seldom necessary to resort to an *emetic* to cure any species of diarrhœa, except it has assumed a chronic form, and becomes extremely obstinate. The *neutralizing mixture* usually puts a stop to the complaint in a short time, and may be given every hour until the passages are changed in

their appearance; afterward given at longer intervals. In ninety-nine cases in a hundred this preparation almost immediately cures ordinary forms of diarrhœa. When an exception, however, occurs, give our *common injection*, and apply *fomentations* to the bowels. Powdered charcoal and magnesia are excellent: for a child one year old give a tea-spoonful three times a day, in sweetened water or milk. The diet of the patient must consist of boiled milk, mixed with a little wheat or rice flour.

SECTION I.

CHRONIC DIARRHŒA.

Simple diarrhœa sometimes becomes chronic in its character, often continuing for a length of time very obstinate. There is a preternatural discharge from the bowels, which is kept up at intervals for a great length of time, and which proves very obstinate. When this is the case, and when the common diarrhœa does not yield to the usual course of treatment, but assumes this protracted type, it must be treated the same as chronic dysentery: recourse must be had to mild emetics and laxatives; and our common purgative, in such cases, is very serviceable. Afterward the *neutralizing mixture* may be given in doses of a table-spoonful three or four times a day. At the same time the *syrup of blackberry root* can be given.

The diet must be composed principally of thickened milk, to which a little powdered cinnamon may be added.

It arises from a morbid state of the liver or stomach, which secretes an acrid or poisonous fluid that seriously affects the mucous membrane of the intestines, causing inflammation, ulcerations, or contractions. The object should be, first, to subdue the local inflammation; second, to change the nature of the secretions of the stomach and bowels, and allay the irritation of the intestines; third, to diminish the frequency of the discharges, with aperients combined with astringents; fourth, to restore lost strength. Injections are excellent; likewise pulverized *charcoal* and *magnesia*. In treating the complaint, regard must always be paid to the skin, as well as any other secretion and excretion.

The following syrup or cordial is excellent for bowel complaints, particularly chronic, of children and adults: Take two quarts of ripe *blackberries*, add one pound of loaf sugar, half an ounce of nutmeg, half an ounce of cinnamon, one quarter of an ounce of cloves, and one quarter of an ounce of alspice; boil all together for a short time, and, when cold, add one pint of imported (not spurious American) French brandy. After standing for a few days in a close vessel or bottle, it may be strained. This makes a very rich, pleasant, and efficacious syrup, and may be given after the bowels have been well cleansed. Dose, from a tea-spoonful to a wine glassful, according to age, three or four times a day. How much better this than mercury!

CHAPTER III.

COLIC. (*Colica.*)

DESCRIPTION.

Colic is characterized by great pain in the bowels, seated principally in the umbilical region, and extending to the stomach, accompanied with nau-

sea, retching or vomiting, and often a spasmodic contraction of the muscles of the abdomen. Several species are enumerated:

1. *Flatulent Colic*, when there is costiveness, griping in the bowels, a rumbling noise, distention of the stomach, pain severe, with an inclination to vomit, &c.

2. *Hysteric Colic*, when there is nausea and sickness at the stomach, severe spasms, costiveness, and dejection of spirits, &c.

3. *Bilious Colic*, when there is a bitter taste in the mouth, thirst, febrile heat, a vomiting of bilious matter, and costiveness.

4. *Painter's Colic*, occasioned by the absorption of lead.

This disease is called colic, from its being more directly seated in the intestines called the colon, than any other.

CAUSES.

The disease is produced by various causes, such as crude and acescent food, wind, a redundance of acrid bile, long-continued costiveness, hardened fæces, certain metallic poisons, derangement of the stomach, recession of gout or rheumatism, hysteria, the application of cold and moisture, worms in the intestines, and from swallowing poisonous substances, as lead.

In all cases there is evidently an irritating substance in the alimentary canal, which produces a spasmodic contraction of the intestines and abdominal muscles, and sometimes violent inflammation, coldness of the extremities, distention of the stomach by a collection of wind, vomiting, obstinate costiveness, and sometimes an evacuation of fæces by the mouth, (a very disagreeable and distressing symptom,) called the iliac passion. The pain changes its situation, and is not confined particularly to one spot.

SECTION I.

FLATULENT COLIC.

This disease is termed flatulent colic in consequence of indigestion and flatulence being the most predominant symptoms. A weak or debilitated state of the digestive organs induces this species of colic. In persons of this description certain articles of food will produce the disease, such as unripe fruit, crude vegetables, &c.

Flatulent colic generally commences by a sense of fulness and uneasiness at the pit of the stomach, attended usually with pain, nausea, retching or vomiting, which continues to increase until the patient becomes very distressed. After a while these symptoms subside, or partially subside, and there are short intervals, the pain occurring in paroxysms, upon an accession of which the patient is extremely uneasy, and can scarcely lay a moment in one position. He rolls upon the bed, and, if his strength permits, gets upon the floor, where he still continues to change his posture, moving to and fro, with his body bent forward and his hands pressing upon the abdomen. The pain flies from one part of the bowels to another, and is much lessened when there is a discharge of wind either upward or downward. There is costiveness, with considerable febrile excitement, pain, soreness, griping of the bowels, a rumbling noise, extension of the stomach, an inclination to throw up, and coldness of the extremities. The presence of wind enables the physician to distinguish this form of colic from the others.

TREATMENT.

Flatulent colic is cured with very little difficulty. The principal object is, to expel the wind, and to remove the constipation of the bowels; to effect which, I usually administer a purgative combined with aromatics; our *common purgative* is very good. The following likewise generally affords immediate relief: Take *capsicum*, cinnamon, cloves, nutmegs, ginger, gum aloes, of each equal parts: pulverized. Add a large table-spoonful of this compound to half a pint of Holland gin; after it has stood a short time give a table-spoonful, in sweetened water or herb tea, until it acts upon the bowels, or relief is procured. At the same time the patient must take freely of *spearmint* or *peppermint tea* every hour. Brisk friction should be made upon the stomach and bowels, which frequently occasions a free discharge of wind. The bowels may also be bathed with *capsicum* and spirits. If the colic has proceeded from overloading the stomach, an emetic might be given, and the operation of it aided by drinking a weak infusion of chamomile.

When called to prescribe for a patient who is labouring under spasms, or who is in acute distress, it is desirable to afford immediate relief, or before the above medicine has time to mitigate the symptoms. When this is the case, give an *emetic*, the *anodyne powder*, or an opium pill half the size of a pea, which contains two or three grains, to be repeated in an hour or two, if the pain does not subside. As soon as the patient becomes relieved, give an ounce of cold-pressed *castor oil;* if it does not act as a purgative in the course of an hour or two, let its operation be aided by an injection. This treatment soon removes the complaint.

Some time ago, during a visit to a patient in the country, I was taken with the *flatulent colic*, caused by error in diet; I took half a tea-spoonful of *capsicum*, (*African cayenne*,) put it into a tea-cup, added a tea-spoonful of sugar, and then poured it nearly full of hot water. After standing till it was a little cool, I sipped it all, and in one hour my pain was gone. Had I sent for a common physician, he probably would have administered a portion of poison, (*calomel.*) *Capsicum* may thus be given on the attack, followed by our common *purgative;* or a table-spoonful of cold-pressed *castor oil* may be taken, and a *fomentation of hops* applied to the bowels.

SECTION II.

BILIOUS COLIC.

DESCRIPTION.

This species of colic seems to depend upon a super-abundant or morbid secretion of bile, and remotely upon noxious or deleterious effluvia of the atmosphere. It occurs more generally in the fall, after sultry and hot weather.

CAUSES.

It would appear that bilious colic is occasioned oftener by a deficiency of biliary secretion, than a redundancy of it. This may be inferred from the want of the customary stimulus of bile imparted to the intestines giving rise to the most obstinate costiveness; and there is no doubt but that the quantity of the bile also is very acrid or vitiated, and which causes such a morbid and irritable state of the stomach.

The intermediate cause of the complaint seems to be a derangement in the capillary vessels, which do not eliminate the ordinary morbific agents, and which mix with the blood, are carried to the inward parts, and there is an effort of the system to expel them through the medium of the liver, stomach, and intestines. Acrid bile pent up in the intestines becomes literally a *poison* to the system, and is the occasion of many very anomalous symptoms.

SYMPTOMS.

The bilious colic generally seizes the patient with a vomiting of a yellow greenish cast; a bitter taste in the mouth, with great heat; circumscribed pain about the region of the navel; sometimes with most excruciating pain all over the abdomen; then shifting from place to place; little or no discharge of urine; a pulsation in the abdomen, with a sense of coldness about it; frequently it is attended with a hoarseness, which continues during the whole stage of the disease, with thirst, fever, and costiveness; and sometimes terminates in the iliac passion.

"In this state of the disease, if a discharge of feculent bilious matter can be obtained, the symptoms generally yield; but it is sometimes difficult to procure evacuations of this character, on account of the irritability of the stomach. Where bilious stools are not brought away, it is common to find chocolate-coloured ones passed, often in vast quantity, reducing the patient to a state of great weakness. If, by the fortunate combination of medicines, or by the efforts of nature, the irritating cause is removed, the tongue becomes clean, appetite returns, and the patient recovers strength."

TREATMENT.

Indications of Cure.—The indications of cure in this disease are,

1. To allay the irritability of the stomach.
2. To evacuate the bowels of their acrid contents.
3. To remove spasms, irritation, or urgent symptoms.
4. To excite a healthy secretion of the liver.

The most distressing symptoms of the complaint are, nausea, retching or vomiting; and, therefore, the first attention of the practitioner seems naturally directed to the stomach: indeed, very little can be done by medicines until this irritable state of the stomach is allayed; something, therefore, must be prescribed calculated to accomplish this object. Let the following be administered: Take sal æratus, a tea-spoonful; mint tea, half a pint; laudanum, a tea-spoonful: mix;—or our *neutralizing mixture* may be given. Of this give a small table-spoonful every half hour, or as often as vomiting occurs; and, when it is allayed, let it be followed up by the administration of a double portion of our *common purgative* or anti-bilious physic. The liver and stomach are sometimes in such a very torpid state, that even these active cathartics are insufficient to evacuate the contents of the intestines. When this happens, *clysters* or *injections* become the anchor of hope, or the only alternative. Those which are properly prepared, and of the right materials, exert a most powerful, sovereign, and salutary effect in this disease; they remove the spasms and griping pains, stimulate the intestines, by which their contents are discharged, as well as allay the nausea and vomiting. The injection may be given, as mentioned under the head of *dysentery*. This, in general, is sufficient; but sometimes those more stimulating are necessary. Introduce as much of the injection as the patient can bear, to be repeated every hour or two, until evacuations are procured or relief obtained. A tea-spoonful of *laudanum* may be added to our common injection, where there

is great pain. The next step in order will be the use of *fomentations* to the stomach and bowels. *Hops* may be boiled with vinegar and water, enclosed in flannel or muslin, and applied over the whole abdomen as warm as the patient can bear, to be often renewed. When the patient has submitted to this treatment, should the disease still continue unsubdued, or should there be much pain, administer the *anodyne powders*. If the first dose does not have the desired effect in two hours, repeat it. It is sometimes the case that the disease assumes such a very violent character, that it becomes necessary, at the very onset, to give an anodyne, and which will generally be attended with an excellent effect; it will put a stop to the vomiting, allay the irritation of the intestines by its anti-spasmodic and relaxing properties, and prepare the way for purgatives.

Again; I have seen the system in such a state, under the influence of bilious colic, that nothing could be made to pass the bowels until perspiration was promoted. It will, therefore, be necessary to give *sudorific* medicines. *Catnip* and *peppermint tea* should be freely drank, the feet bathed in warm ley water, and heated bricks, covered with cloths wet in vinegar, applied to the legs and sides of the body. Where the disease is very violent and severe in its character, in conjunction with the means recommended, it may be necessary to use the warm bath. Should all other means fail, take one pint of new milk, heat it, pour into it molasses until it turns to whey; the adult may take half a pint at a time, every half hour until it operates. After the bowels have been freed and the symptoms mitigated, occasional purgatives or injections may be required, to prevent a relapse. Occasionally a case has occurred where the following preparation has apparently answered better than any other: Take Epsom salts, eight ounces; muriatic acid one quarter of an ounce; boiling water, one pint; mix: dose, a table-spoonful every hour in half a tumbler of water, till it acts as a laxative. This mixture usually allays the vomiting very soon.

SECTION III.

PAINTERS' COLIC. (*Pictonum.*)

DESCRIPTION.

This species of colic differs from the other in some respects, more particularly as regards its severity or violence, and the paralytic symptoms attending it. It is characterized by very obstinate costiveness, with a vomiting of acrid bile, severe pains about the region of the navel, and shooting thence to each side with great violence; strong spasms in the intestines and muscles of the abdomen.

CAUSES.

It is occasioned by long-continued costiveness; an accumulation of acrid bile; cold applied either to the extremities or to the belly itself; a free use of unripe fruits; great irregularity in the mode of living; acrid food or drink, such as sour wines or cider; and the inhalation of vapours arising from a decomposition of lead, or frequently handling some of its chemical preparations; hence painters and glaziers are very often attacked by it. From the disease occurring frequently in Devonshire, (England,) and

other cider counties, it has generally been supposed to arise from an impregnation of lead received into the stomach; and it seems now to be perfectly understood that the malic acid of the apple takes up in solution a portion of the lead of the vats employed in manufacturing the cider, which soon acts upon the stomach of those who drink this liquor abundantly, and produces the disease in question.

SYMPTOMS.

The painters' colic comes on gradually, with a pain at the pit of the stomach, extending downward to the intestines, particularly round the navel, accompanied by eructations, slight sickness at the stomach, thirst, anxiety, obstinate costiveness, a frequent, but ineffectual, desire to evacuate the contents of the bowels, and a quick contracted pulse. After a short time the pains increase considerably in violence, the whole region of the belly is highly painful to the touch, the muscles of the abdomen are contracted into hard irregular knots or lumps; the intestines themselves exhibit symptoms of violent spasm, insomuch that a clyster can hardly be injected from the powerful contraction of the sphincter ani; and there is constant restlessness, with a frequent vomiting of an acrid matter, but more particularly after taking either food or medicine.

Upon a farther increase of the symptoms, or their not being quickly alleviated, the spasms become more frequent as well as violent, the costiveness proves invincible, and an inflammation of the intestines ensues, which soon destroys the patient, by terminating in gangrene. In an advanced state of the disease it is no uncommon occurrence for suppression of urine to take place.

TREATMENT.

The indications to be fulfilled are, to stimulate the inactive or paralyzed intestines into action, to expel their irritating contents, and at the same time allay the irritation or pain. These intentions are fulfilled by purgatives, injections, narcotics, and fomentations. Extract of *hyoscyamus* is very good, as it deadens the sensibility without increasing the constipation, which opiates do. *Croton oil*, one or two drops given in a little milk, is very effectual, and will cure when all other means fail; or, if the pain is very great, give the following: Extract of henbane, nine grains; croton oil, three drops; incorporate well together, and make three pills; give one every two hours till relief is afforded. A little croton oil may be rubbed upon the bowels, and a few drops put into the injections.

The treatment in this species of colic, in other respects, is nearly the same as in the bilious. The means in general, however, require, if practicable, to be more prompt and energetic. I usually commence the treatment of the painters' colic,

1. By giving medicine to allay the vomiting, the same as in bilious colic.
2. By administering *cathartics*, and dislodging the irritating and acrid agents from the intestines; and,
3. By removing the spasms, irritation, &c., by the administration of *injections*, *anodynes*, and *sudorifics*.

After the vomiting has in some degree ceased, or before, if the alkaline medicine does not allay it, give the *anodyne powders*, or an *opium pill* the size of a small pea, and repeat every two hours till the pain subsides; then give a double portion of the *anti-bilious physic* every two hours until the bowels are evacuated, to be aided by *injections* and *fomentations*, as in bilious colic

I have found the warm bath of very great service in the painters' colic; it should be made hot, and the patient kept in as long as possible. I remember one case where the patient was, for a length of time, senseless, from the violence of the pain, and where the hot bath, with other means, soon restored him to health. Indeed the treatment laid down is invariably successful in every species of colic, never yet having lost a single case; while those who, labouring under this disease, have submitted to the common practice have been bled, mercurialized, blistered, and destroyed.

Dr. Luckey, formerly of Elizabethtown, has published the result of a very large experience with *opium* and *castor oil* in the present disease. Foiled by the ordinary modes of practice, he resorted to the use of powerful doses of opium, followed by castor oil, and always with the happiest effects. "I began," says he, "by administering large doses of opium, and generally gave ten grains at a dose every hour until two scruples were taken. I was exceedingly rejoiced to find that the symptoms now began to yield, and a few common doses of oleum ricini, or the infusion of senna, would produce the desired effect. Of forty cases which occurred in my practice, none, except one, proved fatal after the adoption of this practice."

The prevalence of this disease arose from the country people, in the vicinity of Elizabethtown, putting up their *apple butter*, during the fall of 1814, in earthen vessels badly glazed, obtained from a neighbouring pottery. The acid of the apple butter acting upon, and dissolving, the glazure of the crocks, (composed of red-lead,) converted into acetate of lead, which, being received into the system with the apple butter, gave rise to this disease.

A person had been several days in great pain with this disease, constipation, &c. Four physicians were in attendance, but all their endeavours to alleviate the pain were of no avail; another physician was sent for, who immediately ordered tobacco injections, which afforded relief and shortly cured him. Take tobacco, a tea-spoonful; boiling water, one pint; inject.

Dr. Dudley Atkins, in a work entitled "Medical and Surgical cases," gives the following case and treatment:

Ileus cured by Croton Oil.—"Mr. P., a labourer, aged about fifty, of intemperate habits, was suddenly seized with vomiting and purging after drinking very freely of small beer while much heated. I did not see him until the subsequent day. The discharges from the bowels had then stopped; he had great pain in the bowels, and constant vomiting.

"All the common means were resorted to for the purpose of quieting the the stomach, both external and internal, without the slighest relief. The bowels were obstinately closed, and medicine in every form was instantly rejected. He continued in this state for several days, and on the third day the fluid discharged by vomiting became decidedly bad, as tested both by the smell and taste. Finding all the usual means wholly to fail, I determined to make trial of the croton oil. This was administered in doses at first of one, and afterward of two drops, until he had taken ten drops. After a few hours the vomiting ceased, and small discharges took place from the bowels of bright yellow matter, like the stools of an infant, which continued for a couple of days, becoming at last very copious. The pain then subsided, and a rapid convalescence succeeded. It was remarkable that the operation of the oil caused very little griping or pain.

"Bleeding, blisters, sinapisms, injections, calomel, and opium were tried in every form without the least effect. If I remember aright, the vomiting of fœcal matter continued at least one day; I think during a portion of the second. It was about five days from the attack before he got entire relief.

"I embrace this opportunity to recommend an application which I have always found in the highest degree serviceable and convenient in all painful complaints of the bowels, when not attended by inflammation. It is the frequently repeated application of dry hot salt, which is folded up in a towel or napkin. This is always to be had, it is soon heated, and has this great advantage over hot fomentations, that it does not leave the patient wet and cold after his pain is relieved. By keeping two napkins in use, the salt for the one may be heated while the other is applied, and thus a constant succession kept up. In all cases of colic the heat gives relief almost from the first application, and is by far preferable to any mode of applying heat, whether dry or wet, that I have ever made use of."

CHAPTER IV.

COSTIVENESS. (*Constipatio.*)

A CERTAIN state of the bowels may be either constitutional or symptomatic; generally the latter. There is a retention of the excrements, attended with hardness and dryness of the evacuations, which are often difficult, and sometimes painful. Sedentary persons are peculiarly liable to this complaint, especially those of a sanguineous or choleric temperament; or who are subject to hypochondriac affections, the gout, acute fevers, or a diseased state of the liver and spleen. Costiveness is frequently occasioned by neglecting the usual times of going to stool, and checking the natural tendency to those salutary excretions; an extraordinary heat of the body and copious sweats; receiving into the stomach animal food, or a larger proportion of solid food than is proper for the quantity of fluids swallowed; a free use of opium, and by taking food that is dry, heating, and difficult of digestion. Drinking freely and frequently of port wine may likewise occasion costiveness. With the defect of stools there sometimes exist nausea, want of appetite, flatulency, pains in the head, and a degree of febrile heat.

TREATMENT.

This disease is to be obviated by an attention to diet; by observing certain regular periods for soliciting motions; and, where these fail, by having recourse to laxatives, injections, and aperients. The diet of those who are of costive habits should consist chiefly of vegetables and ripe fruits; and their drink, of molasses, water, buttermilk, &c. The second object to be attended to is, a habit of regularity, by going at a certain hour or hours each day, and making proper efforts at each period for promoting an evacuation. If a natural inclination arises at any time, this ought likewise to be encouraged. The laxatives most proper for obviating costiveness are those which afford the least irritation, but which will at the same time procure one motion daily. The anti-dyspeptic pills should be given daily in the commencement, and afterward occasionally; but it is necessary to obtain a regular state of the bowels, by exercise, food, &c. The use of very purgative medicine creates a necessity for its repetition, and by this repetition the bowels lose their energy, and their delicate nerves become torpid. A natural discharge of the contents of the bowels ought, therefore, to be solicited by those of costive

habits, in preference to the habitual use of any kind of purgative whatever. The *brown bread* is exceedingly valuable in this complaint; stewed apples, peaches, and all kinds of ripe fruits are excellent. I find that most cases of costiveness arise from want of exercise, and nothing will supply the place of it; it should be punctually practised and brisk frictions made upon the abdomen, with daily "kneading." Bolted wheat bread must be avoided; also all astringent articles, spices, &c. Ipecac. pills may be taken; they are tonic and aperient. A raw egg or two may be beaten up and taken two or three times a day.

PROFLUENT DISEASES.

CLASS IX.

CHARACTER.

By this class of diseases is to be understood such as are characterized by a preternatural discharge of blood, or some fluid from the system produced in most cases, by muscular debility, or relaxation of the muscular fibre.

CHAPTER I.

VOMITING OF BLOOD. (*Hæmatemesis.*)

DESCRIPTION.

By this disease we understand a discharge of blood by the mouth, generally in a considerable quantity, attended with retching or vomiting, and without its being characterized by those symptoms attendant on bleeding at the lungs.

CAUSES.

This disease may arise from wounds, blows, bruises, or anything which causes too great a flow of blood to this organ; from a suppression of the menses, or the bleeding piles; or it may be symptomatic of some other diseases. It more generally, however, arises from debility, a relaxation of certain bloodvessels, &c.

SYMPTOMS.

A vomiting of blood is readily to be distinguished from a discharge from the lungs, by its being usually preceded with a sense of weight, pain, or anxiety in the region of the stomach; unaccompanied with coughing; the blood being discharged in a very considerable quantity, and of a dark colour; and, lastly, by its being mixed with the other contents of the stomach.

TREATMENT.

If the disease arises from a suppression of the menses, let means be taken

to restore them, by appropriate remedies; in all cases it will be necessary to divert the blood from the seat of the complaint to its original channels. The feet must be bathed, and perspiration promoted or restored. I have found purgatives very useful, which may be given about once a week, or according to the urgency of the symptoms; they will remove the oppression and load at the stomach, and the sense of fulness which accompanies this complaint, and, by their revulsive effects, will heal the diseased bloodvessels. If called to suppress a copious bleeding from the mouth, it will be necessary to administer astringents. A little common salt will often suppress the discharge, to be taken every two hours in water; alum water is also good. If these fail, give a decoction of *beth root*. After the hæmorrhage is stopped, strengthening medicine must be given, for which the *restorative* and *wine bitters* are very valuable. The *anti-dyspeptic pill* should be given, to keep the bowels in a soluble state; and even though they be soluble, a *purgative* must occasionally be administered. The patient should exercise moderately, and never fatigue or strain himself in any way; likewise avoid sudden transitions from heat to cold: he will find it serviceable to wear a *strengthening plaster* on the pit of the stomach. His diet should be light, but nutritious. A cold decoction of the bugle weed or *water hoarhound* (lycopus Virginicus) may be used for constant drink, and also the *flea bane;* they are *tonic* and *astringent*.

CHAPTER II.

SPITTING OF BLOOD. (*Hæmoptysis.*)

DESCRIPTION.

This disease is characterized by coughing up florid or frothy blood, preceded usually by heat or pain in the chest, irritation in the windpipe, and a saltish taste in the mouth. It is readily to be distinguished from vomiting of blood, as in this last the blood is usually thrown out in considerable quantities; and is, moreover, of a darker colour, more grumous, and mixed with the other contents of the stomach; whereas blood proceeding from the lungs is usually in small quantity, of a florid colour, and mixed with a little frothy mucus only.

CAUSES.

A spitting of blood arises most usually between the ages of sixteen and twenty-five, and may be occasioned by any violent exertion, either in running, jumping, wrestling, singing loud, or blowing on wind instruments; likewise by wounds, plethora, weak vessels, hectic fever, coughs, irregular living, excessive drinking, or a suppression of some accustomed discharge, such as the menstrual. Persons in whom there is a faulty proportion, either in the vessels of the lungs or in the capacity of the chest, being distinguished by a narrow thorax and prominent shoulders, or who are delicately formed and of a sanguine temperament, seem much predisposed to this hæmorrhage; but in these the complaint is often brought on by the concurrence of various occasional and exciting causes before-mentioned. A spitting of blood is not, however, always to be considered as a primary disease; it is frequently only a

symptom ; in some disorders, such as pleurisies, peripneumonies, and many fevers, it often arises, and is the presage of a favourable termination.

SYMPTOMS.

Sometimes it is preceded by bleeding at the lungs, a dry tickling cough, and some slight difficulty of breathing ; at other times it is ushered in with shiverings, coldness at the extremities, pains in the back and loins, flatulence, costiveness, and lassitude. The blood that is spit up is generally thin and of a florid red colour ; but sometimes it is thick, and of a dark or blackish cast ; nothing, however, can be inferred from this circumstance, except that the blood has lain a longer or shorter time in the breast before it was discharged. It is not attended with danger where no symptoms of consumption have preceded or accompanied the hæmorrhage, or where it leaves behind no cough, dyspnœa, or other affection of the lungs ; nor is it so dangerous in a strong healthy person, of a sound constitution ; but when it attacks persons of a weak, lax fibre, and delicate habit, it may be difficult to remove it.

TREATMENT.

For the bleeding pursue the same treatment as pointed out for the preceding disease : in addition to which, a strong decoction of the *bugle weed*, cold, may be freely taken as soon as the hæmorrhage has subsided, in order to prevent a recurrence of it ; the *vegetable syrup* should be taken, and the ordinary course pursued, to equalize the circulation. A decoction of *flea bane* is also very good to arrest the bleeding ; where the bleeding is very bad, give the *anodyne powders*.

I lately attended a case of this kind, where the patient bled two gallons in a short time, and yet he recovered.

CHAPTER III.

BLEEDING AT THE NOSE. (*Epistaxis.*)

DESCRIPTION.

In the nose there is a considerable network of bloodvessels expanded on the internal surface of the nostrils, and covered only with a thin tegument ; hence, upon any determination of a greater quantity of blood than ordinary to the vessels of the head, those of the nose are easily ruptured. In general, the blood flows only from one nostril ; but in some cases it is discharged from both, then showing a more considerable disease. Persons of sanguine and plethoric habits, and not yet advanced to manhood, are very liable to be attacked with this complaint. Females are much less subject to it than males, particularly after menstruation has commenced. Peculiar weakness in the vessels of the part, and the decline of life, may also be considered as predisposing causes. Great heat, violent exertion, external violence, particular postures of the body, and everything that determines the blood to the head, are exciting causes.

Bleeding at the nose comes on at times without any previous warning ; but at others it is preceded by a pain and heaviness of the head, vertigo,

flushing in the face, heat and itching in the nostrils, a throbbing of the temporal arteries, and a quickness of the pulse. In some instances a coldness of the feet, and shivering of the whole body, together with costiveness, are observed to precede an attack of this hæmorrhage.

TREATMENT.

In general bleeding at the nose soon ceases; but this is not always the case, as it sometimes proves very serious. When a person has bled from the nose some length of time, it is necessary to take proper means to check it; and in most cases it may easily be done by diverting the blood from the head, and throwing it back to the extremities and surface, which must be effected by the usual means to *equalize the circulation;* the feet must be immediately immersed in a tub of warm ley water, and *hyssop* or *pennyroyal* tea taken to produce perspiration; this will generally stop it in every case: if these fail, let a little cold water be applied to the nape of the neck, the head, and the face. Again; take a piece of smoked beef that is very dry and hard—the more flesh that has been cut off the better—and grate it; this forms a fine brown powder; push this up the nostril as far as possible, and continue to do it till it is closed, or the bleeding ceases: I have never known this fail. This information cost Mr. Hays, the high constable of this city, he states, five hundred dollars; the curative property, I suppose, depends upon the *salt.*

CHAPTER IV.

INVOLUNTARY DISCHARGE OF URINE. (*Diabetes.*)

DESCRIPTION.

This disease is characterized by large quantities of urine, and often an involuntary discharge of it. It is accompanied with great debility, costiveness, fever, voracious appetite, emaciation, the urine sweet, or containing saccharine matter, which is generally voided in a quantity far exceeding that of the aliment or fluid taken into the system.

CAUSES.

Sometimes it arises from the use of spiritous liquors, debility, cold, diuretic medicines, poor diet, depressing passions, an impoverished state of the blood, &c.; it is thought to be occasioned by a perverted or diseased action of the kidneys.

Diabetes makes its approaches very insidiously; the first symptoms usually complained of are, lassitude, weakness, a disposition to sweating on slight exertions, and headache. Sometimes a diseased state of the urine advances to a considerable extent, and exists for some time without being accompanied by any strongly-marked constitutional disturbance, and occasionally even without attracting the notice of the patient. The most striking symptom of the disease is, an increase in the quantity of the urine. This varies very much in different cases, and is, for the most part, a good index of the violence of the disease. The largest quantity recorded as having been

passed in twenty-four hours is, thirty-six pints ; and it is not uncommon to find from twenty to thirty pints discharged daily for weeks, or even months together. The average quantity may, perhaps, be stated at twelve or fifteen pints ; and it is a remarkable fact, that in many instances it exceeds the whole amount of solid and fluid. The secretion of so much urine is almost necessarily attended with a frequent desire to pass it ; the patient is generally compelled to rise three or four times in the night for this purpose.

The appetite is usually much greater than in health ; though digestion is seldom, if ever, perfect. There is uneasiness in the stomach after meals, with flatulence, acid eructations, and irregular bowels. Thirst is a never-failing source of complaint, and often attracts the notice of the patient before he is sensible of the true nature of his case ; the skin is dry, and has a peculiarly rough and parched feeling, from the total want of perspiration ; the gums are often swelled, tender, and red ; sometimes ulcerated ; the breath has a sub-acid odour ; the tongue white and foul in the centre, with bright red edges ; the mouth dry and parched, and the taste depraved. The patient will generally be found to complain of some pain or sense of weakness in the loins. Phymosis and excoriations on the penis are frequently noticed. Besides these, in almost all cases there occur symptoms indicating general weakness or exhaustion, such as swelled legs, emaciation, coldness of the feet, difficulty of breathing on the slightest exertion, a sense of weight at the pit of the stomach, with tendency to syncope, general languor, lassitude, and depression of spirits. Early in the disease the pulse is seldom affected ; but in its progress hectic fever supervenes, and the pulse becomes frequent, feeble, and irritable.

The duration of diabetes is very variable. An instance is recorded where it ran its course, and proved fatal, in five weeks ; on the other hand, it has been known to last for several years, and ultimately to wear out the constitution.

TREATMENT.

The common treatment in this disorder is so various and opposite, that it is impossible to state in what it consists, except it be said, in a word, that it is strictly empyrical. The indication of cure will be, to adopt such a course of treatment as will restore the tone of the system, which must be effected by restorative medicines. If there is nothing to contra-indicate, give a mild *emetic ;* after this has operated, let attention be paid to every secretion and excretion of the system. The bowels should be kept regular, the skin moist, and the feet warm. Let the patient take the following decoction : Take beth root, black cohosh, crane's bill, wild cherry and hemlock bark, equal parts ; pulverize : to a table-spoonful of the powder add a pint of boiling water, and let it be drank cool or cold through the day. A mild *laxative* pill should be taken, to keep the bowels regular ; and, for the febrile symptoms and irritation, let the *diaphoretic powders* be taken at bed-time ; at the same time let the *surface* be bathed with *tepid ley water*. If, after using the above means, the disease is not removed, or the patient does not grow better, give three *capsicum pills* in the morning and three at night, to be accompanied with the use of the *restorative bitters*. A *strengthening plaster* may be applied to the small part of the back : should the disease still prove obstinate, the *bitters* may be taken, the *emetic* occasionally repeated, and perspiration promoted, with the use, occasionally, of a purgative consisting of the pulverized *mandrake* and *cream of tartar*. The tepid bath,

during the treatment, should be used every other day. All these means are calculated to excite a healthy action of the system and remove the disease, by imparting tone and energy. The *balm* of *Gilead* may be taken.

REGIMEN.

Diet sometimes has great influence in curing this disease. Doctor Willoughby L. Lay, of Branford, Connecticut, cured a very difficult case of diabetes, which had resisted every other mode of treatment, by means of diet, which consisted simply of boiled beef-steak, well cooked, and thoroughly chewed or masticated, without bread or vegetables of any kind; this was taken three times a day in small quantities, with very little drink. One or more physicians had previously tried, in vain, to cure the disease.

CHAPTER V.

WHITES, OR FLUOR ALBUS. (*Leucorrhœa.*)

DESCRIPTION.

We understand by this disease an increased secretion or discharge of mucus from the vagina, which consists of a thin white or yellow matter, and is attended with some degree of fœtor, smarting in making water, accompanied with pains in the back and loins, with considerable debility. It is stated that in some cases the discharge is so acrid as to produce symptoms on those who are connected with the woman, somewhat similar to the venereal disease, causing excoriations about the penis, and a discharge from the urethra. There is usually pain and weakness in the back and loins, appetite poor, and the feet swell.

CAUSES.

Debility is one great cause of this complaint, and this may be occasioned by immoderate coition, injury done to the parts by difficult and tedious labours, frequent miscarriages, immoderate flowings of the menses, excessive evacuations, and a sedentary life. Delicate women are very subject to this disease.

SYMPTOMS.

The disease shows itself by an irregular discharge of a fluid from the uterus and vagina which, in different women, varies much in colour, being of a white, green, yellow, or brown hue. In the beginning it is, however, most usually white and pellucid, and in the progress of the complaint acquires the various discolorations, and different degrees of acrimony; whence proceeds a slight smarting in making water. Besides the discharge, the patient is frequently afflicted with severe and constant pains in the back and loins, loss of strength, failure of appetite, pain in the stomach, dejection of spirits, paleness of the countenance, chilliness, and languor. The sleep is disturbed by fearful dreams, and affords but little refreshment. The woman becomes pale and emaciated, her eyes are dull, and a flushing of the face is alternated by a ghastly paleness. In process of time the feet and ankles

swell, palpitations and a difficulty of respiration are experienced; the mind is dejected, apprehensive, and occasionally affected with melancholy. Very frequently the functions of generation are greatly injured, and barrenness is often the consequence. Hysterics also, in a greater or less degree, are generally attendant on this complaint; the urine is turbid, and the menstrual discharge sometimes scanty, and even suppressed; at other times it is too copious, irregular, or attended with much pain.

TREATMENT.

The chief object of the physician should be, in treating this disease, to impart tone and energy to the system. This course will, in most cases, be attended with success. If the stomach is in a disordered state, a mild *emetic* may be given; but, in general, it is sufficient to commence with the exhibition of a moderate purgative; after which give the *diuretic drops:* of this let the patient take half a tea-spoonful in a wine glass of milk or any kind of tea, three times a day, before eating, to be taken on an empty stomach. While the patient is using this, give the *restorative wine bitters;* from half a wine glass to a wine glassful may be taken three or four times a day. This preparation gives strength to the system, and generally soon diminishes the complaint. While the patient is taking these preparations, an adhesive or strengthening plaster should be put upon the back. The patient may also make a tea of the *hollyhoke* and *rose leaves*, equal parts, and drink through the day. A tea of *beth root* is also excellent. Should the disease continue after the exhibition of these medicines, let the following decoction be injected up the vagina: Take white oak bark, sumach berries or bark, bark of witch hazel, hemlock bark; bruise or pulverize, and make a strong concentrated decoction; to every pint add a tea-spoonful of pulverized alum: let it be injected morning and night, with a female syringe. If this injection, with the preceding remedies, does not effect a cure, the patient may take the following: Beth root, sweet fern, lady's slipper, of each one ounce; steep in three pints of water and four gills of milk: dose, a pint during the day. Inject, with *witch hazel* or *crane's bill*, twice a day.

A lady of this city, subject to this complaint, and unable to obtain a remedy in this country, went to Paris, in France, and applied to a physician there. He prescribed the following, (in Latin,) and it has cured her. It has likewise restored others to health:

1. Tincture of aloes, one ounce; muriated tincture of iron, two drachms: mix: dose, forty drops three times a day, in a little water.

2. Inject up the womb, with a female syringe, the following wash twice a day: Sugar of lead, one drachm; white vitriol, one drachm; add one pint of rain water: mix.

I have cured this disease, when other means have failed, by giving only the *alterative syrup*, which may be used, should the complaint remain very obstinate. Strong tea and coffee must not be used. The patient should take sufficient exercise to promote a healthy action of the bowels and keep them regular

CHAPTER VI.

IMMODERATE FLOW OF THE MENSES (*Menorrhagia*)

DESCRIPTION.

There is sometimes an immoderate flow of blood from the womb. When the menses return more frequently than is natural, when they continue longer, or are more abundant, it is termed *menorrhagia*. The disease is accompanied with bearing or pressing down, and pains in the back and abdomen.

CAUSES.

Whatever produces too great a determination of blood to the womb, may cause this disease; as too much exercise, strains, injuries, violent passions of the mind, check of perspiration, abortion, difficult or tedious labours, and debility arising from any cause, such as drinking freely of warm, enervating drinks, tea and coffee, want of exercise, &c.

SYMPTOMS.

An immoderate flow of the menses arising from plethora is often preceded by headache, giddiness, shortness of breath, and is afterward attended with pains in the back and loins, some degree of thirst, universal heat, and a frequent, strong, hard pulse; but where it arises in consequence of a laxity of the organ, or of general debility, and such attacks are frequently repeated, the symptoms which attend are, paleness of visage, chilliness, laxity, unusual fatigue in exercise, a hurried respiration on the slightest effort, pains in the back on remaining any length of time in an erect posture, and coldness of the extremities, together with loss of appetite, indigestion, and a long train of nervous complaints. If the disease has induced much debility and severe attacks, it is no uncommon occurrence for the feet to be affected with dropsical swellings, particularly toward evening.

TREATMENT.

When there is excessive discharge from the womb, active means must be taken to suppress it. The feet must be immediately immersed in warm water, and, if there is great pain in the abdomen, a fomentation of *hops* and *wormwood* applied, and the following powder given internally: Take diaphoretic powders, ten grains; capsicum, or cayenne pepper, ten grains, or half a tea-spoonful of each: mix. If the pain and hæmorrhage is considerable, give the whole; otherwise give one half, and in an hour give the other. At the same time give a strong decoction of *fleabane* or *beth root*. Apply cloths, wet with vinegar, spirits, and rain water, to the abdomen and over the vagina. If this does not check the discharge in a short time, let the patient take *alum whey*.

When the urgent symptoms have been removed, means must be taken to prevent a recurrence of the hæmorrhage; to effect which give a course of tonics: a decoction of *bark root* to be taken through the day, and the *restorative wine bitters* morning, noon, evening, and at bed-time.

Where there is a considerable discharge from the vagina, appearing sud-

denly or at various periods, and which resists, in any degree, these remedies, the patient may inject once or twice a day the decoction mentioned under the head of fluor albus or whites. It is necessary to distinguish between an approaching miscarriage and a common flooding, which may readily be done. Cold application must not be continued too long, lest injurious effects follow their application.

I lately cured a case of this kind, which baffled all former attempts to remove it, by the treatment here laid down. The patient had become exceedingly reduced by the loss of several gallons of blood in the course of a few months. There was great debility, paleness, emaciation, &c. The medicine restored her to perfect health in a short space of time.

Indian Remedy for the Immoderate Flow of the Menses.—Red alder bark, yarrow, mullein, crowfoot, equal parts; *beth root*, half as much; make a tea, and drink, when cold, a tea-cupful every two, three, or four hours, as the case may require; or equal parts of finely pulverized *beth root* and *crowfoot*, one tea-spoonful in a cup of yarrow tea, every hour. Apply flannel cloths, dipped in vinegar, on the lower part of the bowels.

The last case of flooding I attended was very severe and dangerous. I ordered cold applications over the abdomen, a tea of the *flea bane* taken internally, and the *anodyne powders*. The patient lost an immense quantity of blood, but she rapidly recovered. When faint, I prescribed a little *lavender compound*. Cold water may be drank, and, if very faint, ten drops of *harts-horn* may be taken occasionally in a little water, or in the lavender.

CHAPTER VII.

ABORTION. (*Abortio.*)

DESCRIPTION.

Miscarriage, or the expulsion of the fœtus from the uterus, before the seventh month, is called abortion; after which, premature labour. It most commonly occurs between the eighth and eleventh weeks of pregnancy, but may happen at a later period. In early pregnancy the ovum sometimes comes off entire; sometimes the fœtus is first expelled, and the placenta afterward. It is preceded by floodings, pains in the back, loins, and lower part of the abdomen, evacuation of the water, shiverings, palpitation of the heart, nausea, anxiety, fainting, subsiding of the breasts and belly, pain in the inside of the thighs, opening and moisture of the womb. The principal causes of miscarriage are blows or falls; great exertion or fatigue; sudden frights and other violent emotions of the mind; a diet too sparing or too nutritious; the abuse of spirituous liquors; other diseases, particularly fevers and hæmorrhages; likewise excessive bleeding, profuse diarrhœa or colic, particularly from accumulated fæces; immoderate venery, &c.

TREATMENT.

A very similar course of treatment must be pursued in abortion as that recommended in the preceding disease, menorrhagia. Cleanse the bowels by the use of cathartics, directing the patient to remain quiet in a recumbent position, kept as cool as possible, with a low diet, and the cooling regimen in

other respects. Shou.d there be much flooding, cloths wetted with cold water ought to be applied to the region of the uterus, or even introduced into the vagina, to obstruct the escape of the blood mechanically. Where violent forcing pains attend, an *anodyne* may be given by the mouth, or in the form of glyster, after proper evacuations. Should these means not avail to check the discharge or the forcing pains, and particularly if the water be evacuated, there can be no expectation of preventing the miscarriage; and where there is reason for believing the fœtus dead, from the breasts having previously subsided, the morning sickness gone off, the motion stopped, &c., it will be proper rather to encourage it by manual assistance. If, on the other hand, females of a delicate and irritable habit, rather deficient in blood, be subject to abortion, or where this accident is threatened by profuse evacuations and other debilitating causes, it may be more probably prevented by a diet nutritious, yet easy of digestion, with tonic medicines, and the use of the tepid bath, attending at the same time to the state of the bowels, giving anodynes if pain atend, and carefully avoiding the several exciting causes. When a female has suffered several abortions, it becomes almost impossible to prevent a repetition at the same period of gestation in a subsequent pregnancy. Nothing, however, will be so successful in preventing a recurrence of a similar misfortune, as in allowing the uterine vessels to recover their tone; for which purpose tonics must be given. Attend to particular symptoms as they occur; with proper diet and exercise. *Sea bathing* and the *shower bath* are both excellent.

CHAPTER VIII.

CESSATION OF THE MENSES. (*Commonly called the "Turn of Life."*)

DESCRIPTION.

That period of life at which the *menses* cease to flow is likewise very critical to the sex. The stoppage of any customary evacuation, however small, is sufficient to disorder the whole frame, and often to destroy life itself. Hence it is that so many women either fall into chronic disorders, or die about this time. Such of them, however, as survive it without contracting any chronic disease, often become more healthy than they were before, and enjoy strength and vigour to a very great age.

If the *menses* cease suddenly, which is seldom the case in women of a full habit, they ought to eat less food, especially of the more nourishing kind. They should likewise take sufficient exercise, and keep the body open

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CHAPTER IX.

INCONTINENCE OF URINE. (*Encuresis.*)

DESCRIPTION.

It is generally known that some children, and occasionally adults, are subject to an involuntary discharge of urine, particularly at night It arises

from a debility of the urinary organs, occasioned by drinking great quantities of tea, coffee, or ardent spirits, or by strains, or whatever relaxes the parts It may likewise be occasioned by irritating substances contained in the bladder

TREATMENT.

The treatment of this disease will consist in restoring the tone of the parts by the exhibition of tonics and astringents. The patient should be directed to drink a decoction made of the following articles: Take wild cherry tree bark, hemlock bark, bayberry bark: bruise or pulverize, and add a sufficient quantity of water to make a strong tea or decoction. While the patient is taking this decoction, let him take the *diuretic drops* in a tumbler of *beth root* tea or water three times a day: the diet should consist of boiled milk and wheat flour, with a little nutmeg and cinnamon sprinkled in it. He must abstain from the use of tea and coffee, and take as little as possible of liquids of any kind. This complaint in children is often the result of habit or carelessness, in not being made to void the urine immediately before going to bed. As this disease is often occasioned by a check of perspiration, this secretion should always be restored. Tepid bathing, or applying cold water to the loins and lower part of the bowels, is beneficial as well as laxatives. An adhesive or strengthening plaster should also be applied to the small part of the back and sacrum. Some are in the habit of giving tincture of cantharides in this complaint; formerly I administered it in a few cases, and in one it effected a cure.

CHAPTER X.

VOIDING BLOOD BY URINE. (*Hæmaturia.*)

DESCRIPTION.

This is rarely, if ever, a primary disease, but is commonly a symptomatic complaint, arising from some external injury by blows, bruises, or a fall; by some violent exertion, as lifting a heavy weight, jumping, or hard riding; or from a small stone lodged either in the kidney or the duct for conveying the urine thence to the bladder, and which, by its irregularity or size, wounds or lacerates the surface of the part in which it is lodged or through which it has passed. If the blood proceeds immediately from the bladder in consequence of a stone contained in it, it is generally accompanied by a sense of heat and pain at the bottom of the bowels, and occasionally much difficulty in making water. When a discharge of blood proceeds from the kidney or urinary ducts, and is occasioned by a rough stone descending thence to the bladder, it is accompanied by an acute pain and sense of weight in the back, and a difficulty in emitting urine. The depositing of clotted blood at the bottom of the chamber in this complaint, and its staining linen of a red colour, will enable us to distinguish it from the high-coloured urine attendant on many diseases. The voiding of bloody urine denotes danger, but it is particularly so when mixed with purulent matter, as it then points out that there is ulceration in some part of the urinary passages. Nor is the danger less when it has been produced by wounds or bruises of the kidneys.

TREATMENT.

The treatment of this complaint likewise consists in giving stimulating diuretics and astringents. The *urinary decoction* may be taken, according to directions given under the head of that preparation; likewise the *diuretic drops*, as directed in the preceding disease; give a decoction of the *gravel plant*, (*epigea repens.*) I lately attended one case of this kind, which I cured by a strong decoction of *peach tree leaves*.

CHAPTER XI.

ONANISM, SELF-POLLUTION, &c.

DESCRIPTION.

By this disease is to be understood an excessive discharge of the seminal fluid, either naturally or artificially. It is a very common practice among men and women, more particularly youth. It gives rise to a variety of symptoms, which are often unsuspected or overlooked by the physician, and by the friends of the patient. The semen being the most vital fluid of the system, it is easily seen what the consequence must be when it is thrown off in an undue or excessive degree; and it is somewhat doubtful whether a discharge of it in any manner does not more or less injure the health or lessen the growth of persons.

SYMPTOMS.

This disease produces febrile complaints, mania or mental derangement, dyspepsia or indigestion, hectic fever, and general debility. The more one indulges the practice, the greater the propensity for it. It causes a long train of complaints, tremours of the limbs, headache, restless nights, gleets or discharges from the urethra, pains of the system in different parts; the memory, judgment, and reason become impaired; discharge of semen, particularly at the thought or sight of women; pain in the breast and loins, cough and consumption, weakness in the back and genitals, sometimes fits of apoplexy, hypochondria, and hysteria, and great despondency of mind.

TREATMENT.

1. The patient must abandon the practice immediately.
2. Neither see nor think of women more than is possible.
3. If there is nocturnal emissions of semen, let the patient take a few grains of the *diaphoretic powders* at bed-time.
4. Give the *diuretic drops* through the day.
5. Apply the *tincture of capsicum* to the back and loins.
6. Let the *wine bitters* be taken.
7. Tepid bathing in salt water.
8. A cooling, but nutritious, diet, milk, &c.
9. Reside in the country.

For farther particulars on this important disease, consult a work by Tissot, translated from the French

CHAPTER XII.

CATARRH IN THE HEAD.

The glands and membranes of the head secrete a fluid to keep the mouth, nose, and eyes moist; from cold, debility, and other causes, it is liable to become obstructed, in which case this liquid is secreted too copiously, when it is called a catarrh. The liquid that flows from the nostrils makes the eyes tender, irritates the nose, and occasions sneezing, or falls into the throat and windpipe, and causes coughing, and, if long continued, the consumption. It irritates the mouth and other parts over which it passes, and sometimes collects in the throat, and almost chokes the person. It may last for years, and cause pain in the eyes, cough, drowsiness, and emaciation.

TREATMENT.

Bathe the head and shoulders with *cold water*, and use the *cephalic snuff*. If these do not cure, use the following, which I have found a very valuable remedy: Take *common sage*, a table-spoonful; *black pepper*, a tea-spoonful: pulverize: smoke two or three pipes during the day, and force the smoke through the nose; this has proved a superior remedy. This treatment would probably be very useful in all chronic complaints of the head.

Dr. Leavit, a botanic physician of this city, states that he has found the following snuff very efficacious in catarrh: *Blood-root*, *gum Arabic*, *gum myrrh*, pulverized, equal parts. He also asserts that he would not take five thousand dollars for an ounce of this snuff, in case he could not procure any more. He was reduced very low with the catarrh, and it cured him.

REFLUENT DISEASES.

CLASS X.

CHARACTER.

This class of diseases is directly the reverse of the preceding, viz., *profluent diseases*. When any fluid is obstructed, or is returned back into the circulation, it constitutes a disease which comes under this head.

CHAPTER I.

RETENTION OF THE MENSES. (*Chlorosis.*)

DESCRIPTION.

It is well known that females, from the age of twelve to sixteen, (or according to the climate,) begin to menstruate, and which constitutes a critical

period in their lives, as health depends very much upon this discharge. It is liable, from various causes, to become obstructed at the period when it ought to appear; when this takes place it is attended with very painful or serious effects; and, if nature is not assisted, the health is impaired or the constitution undermined, inducing consumption or some other complaint.

CAUSES.

The remote cause of this complaint is most frequently suppressed perspiration; and it may arise, in part, from an inactive and sedentary life, and such habits as are peculiar to the higher classes of society, particularly in cities and towns. The proximate cause of it seems to be a want of power in the system, arising from inability to propel the blood into the uterine vessels with sufficient force to open their extremities and allow a discharge of blood from them.

SYMPTOMS.

Heaviness, indifference to motion, fatigue on the least exercise, palpitations at the heart, pains in the back, loins, and hips, flatulence, acidities in the stomach and bowels, costiveness, a preternatural appetite for chalk, lime, and various other absorbents, together with many dyspeptic symptoms. As it advances in its progress the face becomes pale, and afterward assumes a yellowish hue, even verging upon green, whence it has been called green sickness; the lips lose their rosy colour; the eyes are encircled with a livid areola; the whole body has an unhealthy appearance, with every indication of a want of power and energy in the constitution; the feet are affected with swellings; the breathing is much hurried by any great exertion of the body; the pulse is quick, but small; and the person is liable to a cough, and to many of the symptoms of hysteria. Sometimes a great quantity of pale urine is discharged in the morning, and not unfrequently hectic fever attends. In cases of a more chronic character "there is a continued, though variable, state of sallowness, yellowness, darkness, or a wan, squalid, or sordid paleness of complexion, or a ring of darkness surrounding the eyes, and extending perhaps a little toward the temples and cheeks.

TREATMENT.

As this disease proceeds from debility, it is evident that the great object to be fulfilled will be, to give tone and energy to the system; and if this debility has arisen from a sedentary life, the patient must begin immediately to exercise in the open air, and, if practicable, to change her residence. I once had a case so very violent and protracted, that the patient often had fits resembling the apoplexy. I gave her medicine, and during the time she was taking it she went to the sea-shore, bathed, took herb tea, and after a few weeks or months was entirely restored to health. The change of air, bathing, &c., appeared to contribute as much to the cure as the other means made use of. The tepid or warm bath should be used in preference to the cold. The first medicine given may be the pulverized *mandrake root*, combined with a little *cream of tartar;* and, when the stomach is very irritable, our *common purgative* will be found excellent. This, as well as other medicines, should be taken upon an empty stomach: after it has been given, *motherwort*, *pennyroyal*, and other herb teas may be freely drank. After the exhibition of the purgative, which may be occasionally repeated, *gum aloes* may

be taken, combined in such a manner as to prevent the piles. This medicine, from its action upon the uterus through the medium of the rectum, is very useful in retention of the menses; and its benefit is much increased by combining it with other articles; hence we have used it in the form of the *anti-dyspeptic* pill, which answers the purpose very well; it is mild, gently laxative, and tonic: two or three of these may be taken at bed-time, or as many as are sufficient to keep the bowels regular. During the use of these pills let the patient take the *restorative wine bitters*, as directed under that head. *Emenagogues*, or "forcing medicines," should not be used to bring on the menses, except there be a struggle or effort of nature to effect it, which may be known by the periodical pains and pressing down about the hips and loins. When this occurs let the feet be bathed, and perspiration promoted, by drinking freely of diluent teas, such as *pennyroyal*, *motherwort*, and *garden thyme*. Should considerable pains attend the complaint, eight or ten grains of the *diaphoretic powders* may be given, and *fomentations of bitter herbs* applied over the region of the womb. The *black* or *emenagogue powders* are very good; the *female pills* may also be taken, if the disease proves obstinate.

A physician of this city states that he has cured several cases by the use of *hydriodate of potash* in solution. Bathe the feet daily.

Dr. Dewees states that he has never known the following to fail during thirty years' practice: Take pulverized *gum guaiacum*, four ounces; *carbonate of soda* or *potash*, half a drachm; pulverized *alspice*, one ounce; diluted *alcohol*, one pint: digest a few days; one or two drachms of *hartshorn* to every four ounces of the tincture: dose, a tea-spoonful morning, noon, and night, in sweetened milk or wine; gradually increase the dose.

The patient should be very careful not to expose herself to the vicissitudes of the weather, and not suffer the feet or clothes to become wet; warm clothing must be worn, and particularly flannel. Chalybeate waters, such as Ballston and Saratoga, have been taken with success in this complaint. A table-spoonful of the *red oxide of iron* may be added to every quart of the *bitters*. For pain apply a heated brick, covered, to the bowels.

The diet should be light, nutritious, and easy of digestion.

CHAPTER II.

SUPPRESSION OF THE MENSES. (*Amenorrhœa.*)

DESCRIPTION.

In this disease there is a partial or total obstruction of the menses in women from other causes than pregnancy and old age. The menses should be regular as to the quantity and quality; that this discharge should observe the monthly period, is essential to health. When it is obstructed, nature makes her efforts to obtain for it some other outlet; if these efforts of nature fail, the consequence may be, fever, pulmonic diseases, spasmodic affections, hysteria, epilepsy, mania, apoplexy, green sickness, according to the general habit and disposition of the patient. Any interruption occurring after the menses have once been established in their regular course, except when occasioned by conception, is always to be considered as a case of suppression. A constric-

tion of the extreme vessels, arising from accidental events, such as cold, anxiety of mind, fear, inactivity of body, the frequent use of acids and other sedatives, &c., is the cause which evidently produces a suppression of the menses. In some few cases it appears as a symptom of other diseases, and particularly of general debility in the system, showing a want of due action of the vessels. When the menses have been suppressed for any considerable length of time, it not unfrequently happens that the blood which should have passed off by the uterus, being determined more copiously and forcibly to other parts, gives rise to hæmorrhages; hence it is frequently poured out from the nose, stomach, lungs, and other parts, in such cases. At first, however, febrile or inflammatory symptoms appear, the pulse is hard and frequent, the skin hot, and there is a severe pain in the head, back, and loins. Besides, the patient is likewise much troubled with costiveness, colic pains, and dyspeptic and hysteric symptoms.

TREATMENT.

It will be necessary, in the treatment of this disease, to remove urgent symptoms if they are present. If the patient is in severe pain, give the *diaphoretic powders*, and at the same time let a strong infusion of *garden thyme* and *pennyroyal* be freely given. Immerse the feet in warm ley water, and rub well with coarse flannel. If relief is not obtained in the course of an hour, or in a very short time, a strong decoction of bitter herbs should be thrown into a proper vessel, and the patient steamed fifteen or twenty minutes, as long as she is able to bear, or until perspiration is produced; immediately after which let her be put in bed, covered warm, and the herbs be enclosed in flannel or muslin, and applied to the lower part of the abdomen or belly. This process will almost immediately relieve the urgent symptoms. After this our next object will be, to regulate the menstrual discharge, by a proper course of strengthening medicine; that recommended under the head of *chlorosis*, or *a retention of the menses*, may be taken with advantage. Inasmuch as this complaint, like the preceding, proceeds from debility, it is evident that it must be removed, in order to effect a cure; and, therefore, that medicine and treatment which strengthens and invigorates the system, will invariably benefit the patient. The skin, stomach, and intestines, all seem concerned in the production of this disease, and hence our attention should be directed to a restoration of their proper offices: the stomach and bowels should be cleansed and stimulated to a healthy action; perspiration must be promoted, and, in short, every secretion and excretion of the system. If the stomach is in a morbid condition, let an emetic be occasionally given, and afterward a dose of *mandrake;* both of which may be repeated as occasion requires. The patient may then take the following tonic bitters: Take prickly ash bark, two ounces; wild cherry tree bark, two ounces; Seneca snake-root, one ounce; tanzy, one ounce; gum soctorine aloes, half an ounce; devil's bit, two ounces: pulverize; to every two ounces of the powder add half a pint of boiling water and one quart of Holland gin, and half a wine glassful taken three or four times a day. This may be continued while it agrees with the patient, or as long as benefit is derived. About once a month there will generally be felt more or less symptoms preceding a catamenial discharge; considerable pain will be felt through the lower part of the abdomen, hips, and loins, showing that there is a strong effort or struggle of nature to return the menses. Our principal object, when this occurs, should be, to aid her salutary efforts, as directed

in the preceding complaint; the patient should sit over the steam of *bitter herbs* for ten or fifteen minutes, retaining the steam by means of a blanket, to concentrate it upon the lower part of the body; at the same time the feet may be bathed, and *tanzy tea* freely drank. The abdomen should also be fomented, as before directed. It will not be necessary, however, to use these means, except there is an obvious indication to return the menses.

It must be recollected, that when the patient labours under some other disease, there is such debility that there is not superfluous blood sufficient to keep up the menstrual discharge; and in this case our attention must be directed to the primary affection, without any regard to such symptoms; it is also very necessary to bear in mind the fact, that the menses are often suppressed from pregnancy, and the physician will be applied to return them, with a view to procure abortion. No man, possessed of any principle, will ever be guilty of prescribing medicine in such a case, with a view to return them; such conduct would be very criminal, and an indictable offence. Great rewards or remuneration are held out in such cases to the practitioner; but, as he values his reputation, character, and conscience, let him never yield to the temptation. By a proper attention, he can always discriminate between a suppression of the menses and pregnancy; and the principal diagnostic symptom is, that in the former complaint there is a pain or an affection of the head, attended with dizziness.

I lately attended a case of *amenorrhœa* which had existed for two years, and the abdomen had gradually acquired an enormous magnitude, much larger than a female in the last month of pregnancy; after having tried all my ordinary remedies to return the menses, I succeeded with the following treatment: I first gave a tea or infusion of the *digitalis* or *fox-glove*, as directed under the head of *hydrothorax*. In the next place a *purgative* was ordered once or twice a week. During the same time the patient was directed to drink freely of *parsley tea*, and rub the whole abdomen twice a day with sweet oil, and as often with *white precipitate ointment*. From the time that the patient commenced this treatment the belly began to subside, and shortly the courses returned, she soon entirely recovered her health, and has been well for many years. Having exhausted my skill in trying all ordinary remedies, I resorted to this last treatment, as an experiment, or as the last alternative, and never was a medicine more strikingly successful. The cure was a matter of astonishment to all who witnessed it. The abdomen was perfectly tense and hard, and appeared almost in a state of scirrhus. Of the modus operandi of the medicine, I must leave the reader to judge.

A person informed me, some years ago, that a physician on Long Island cured his wife of obstructed menses, which had placed her life in the greatest jeopardy, and which other physicians could not remove. The following formula was used: Take tincture of gum myrrh; tincture of castor, equal parts: give a tea-spoonful three or four times a day.

Since writing the preceding remarks upon this complaint, I administered a dose of *mandrake* for a bilious complaint to a young woman who had been afflicted with partial or deficient menses for many years, and which not only removed the symptoms for which it was given, but likewise returned the menses.

Again; a gentleman has come a distance of forty miles to obtain relief for his daughter, who has been labouring under a spasmodic affection from suppressed or obstructed menses. Two physicians have attended her, and pursued the usual course of bleeding, &c., the effect of which has been (as I predicted) an aggravation of the complaint. The bleeding soon induced

greater spasms, and, finally, convulsions. I explained to him the nature of the disease, gave him my opinion, that it proceeded not from repletion or excess of blood, as his physician stated, but from an *unequal* circulation or an undue quantity thrown upon the brain. He then stated that her feet and legs were as cold as a dead person's, evidently showing a recession of blood from these parts to the head. After stating my views and treatment of the disease, he appeared forcibly struck with the difference, and exclaimed, "How you doctors differ!"

Dr. Tidd, with whom I first studied, was in the habit of giving a preparation which has been attended with success, and which I have formerly been in the practice of giving. He procured it from some person in the section of the country where he resided, who obtained great celebrity for removing this disease. It is made as follows: Take gum myrrh, four ounces; flowers of sulphur, four ounces; steel filings, four ounces; loaf sugar, four ounces, pulverize, and simmer all in a quart of wine, until the mass becomes nearly dry; after which remove from the fire, and, when dry, pulverize: of this let the patient take half a tea-spoonful two or three times a day. Some prefer taking the same quantity in the form of pills.

I cured a patient labouring under this complaint, by giving the white gum turpentine in wine; mustard plasters applied to the breasts. A great change followed, and she soon recovered. One ounce of the gum to one pint of Malaga wine: dose, half a wine glassful three of four times a day.

Or the following: Take gum turpentine, half an ounce; red oxide or carbine of iron, half an ounce; capsicum, one drachm; Malaga wine, one quart: mix: dose, a table-spoonful four times a day.

Under the treatment here laid down I do not now recollect a single instance of failure.

The following case occurred within my knowledge: A young lady had laboured under almost a total suppression of the menses all her life, or for many years. She had tried almost every kind of medicine without receiving the least benefit, and her case appeared utterly hopeless. Having been advised to apply to a woman who was very noted for curing this disease only, she called upon her, stated her symptoms, received a box of pills, and took them according to her directions; the effect of which was, the natural return of the catamenial discharge and perfect restoration to health. The father presented me with a few of the pills, which I found to be composed of about four parts of white turpentine gum, and one part of sulphate of iron, (green vitriol,) formerly called sal martis. Two or three pills of the same to be taken at a dose, three or four times a day.

CHAPTER III.

PAINFUL AND IMPERFECT MENSTRUATION. (*Dysmenorrhœa.*)

DESCRIPTION.

Besides the two deviations from the usual course of nature already mentioned, there sometimes occurs a third, viz., where menstruation, although not wholly suppressed, is, nevertheless, somewhat difficult, and accompanied with severe pains in the back, loins, and bottom of the belly. This disease is

owing to a weak action of the vessels of the uterus, or spasm of its extreme vessels, and is to be obviated by tonics, warm bathing, both local and general, together with the use of anodynes, which should be employed as soon as the symptoms that denote its approach are apparent. This complaint is a common, and generally an extremely harassing, affection. It may occur at every period during the menstruating stage of life; but it appears to be most common between the twentieth and thirtieth years of age, and in subjects of an irritable and sanguineous temperament. In many instances severe pains are experienced in the back, loins, and lower part of the abdomen for five or six hours previous to the appearance of the menses. This, however, soon ceases, and an immediate aggravation of the torturing pain follows. Sometimes the catamenia begin to flow moderately, with little or no previous pains; but in an hour or two they become suddenly arrested, at the same time that violent pains come on in the hips, side, loins, back, and thighs, with a distressing sensation of forcing or bearing down. Occasionally a very slight menstrual discharge continues uninterruptedly for three or four days, accompanied throughout with extremely severe pains in the abdomen; and in some rare instances the catamenial evacuation, although attended with great suffering, is sufficiently copious and prolonged in its course, and may even exceed the regular duration and quantity of an ordinary healthy menstruation.

TREATMENT.

Since it is well known that a derangement in the uterine functions must generally proceed from a check of perspiration, astringing the minute ends of the uterine vessels, or in some manner deranging their functions, causing debility, &c., it will appear clear that our first attention must be directed to the skin. Cold appears to be the cause of the disease, and heat seems to remove it; therefore, when these periods of distress occur, let the patient sit over a strong decoction of bitter herbs, such as *tansy*, *hoarhound*, *wormwood*, *catnip*, and *hops*, while a blanket is thrown round the waist of the patient to confine the steam to the lower parts. After the diseased person has been thus steamed and the feet bathed, let her be put into a bed, warmly covered, and diluent drinks given, such as tansy, thyme, pennyroyal. &c. At the same time let fomentations of the same herbs, enclosed in a flannel bag, be applied to the abdomen, as before directed. This will produce perspiration and afford immediate relief; and when these distressing symptoms are removed, and the patient becomes comfortable, a course of treatment must be adopted to prevent a recurrence of these symptoms, or to produce a natural flow of the catamenial discharge; and similar to that recommended under the preceding complaints. Herb tea may be freely drank.

A writer on this subject thus remarks. "This case of painful menstruation deserves particular attention, because it impairs the health of patients by its present effects, and seems to render them less prolific in future. Dr. Fothergill has afforded relief to several by the following process: Let the patient have near her a few pills, consisting of opium, gr. i. each, made soft with a little of any kind of conserve. She is to take one of these pills the moment the pain attending this discharge comes on. A pill may be taken every hour till the pain ceases; more than two will seldom be required; yet they must be taken in quantities sufficient to mitigate the pain. Let the patient keep either in or upon the bed, or at least in a recumbent posture, drink moderately of any diluting liquor, as herb teas, weak whey, or

thin broth. When the time is past, a course of chalybeate bitters, in small doses, may be continued, till within a few days of the return; and the belly should be kept open with some proper laxative. This excruciating pain seems to be spasmodic, and to proceed from the extreme irritability of the uterine system." The *diaphoretic powders* will be found very useful. Diet and exercise are very important. Hot bricks, enclosed in flannel wet with vinegar, or dry hot salt, applied to the bowels, soon relieves the pain.

CHAPTER. IV.

NIGHTMARE. (*Incubus.*)

SYMPTOMS.

The nightmare attacks the person during sleep, and the first approach of the fiend is usually in the shape of a disagreeable and frightful dream. He perhaps supposes himself in great danger, or pursued by an enemy whom he finds it impossible to avoid. He frequently feels as if his limbs were confined and deprived of motion. After a time the uneasiness of the patient rapidly increases, he feels oppressed with a sense of weight on the chest, impressing him with the idea that some living being is seated thereon, inspiring terror, impeding respiration, and paralyzing all the voluntary muscles. The sensation is highly distressing and painful; he becomes every instant more awake and conscious of his situation; makes violent efforts to move his arms, with the view of throwing off the weight, but all to no purpose; he moans sadly, his heart is sometimes affected with palpitations, but generally moves with additional velocity; the difficulty of breathing goes on increasing, the eyes are half open, and the countenance puts on a ghastly appearance. He generally lies in this state for two or three minutes, when all at once he recovers the powers of volition, upon which he either changes his position instantly, so as to awake himself thoroughly, or he jumps out of bed in a violent fright. When this is not done, the paroxysm or fit is very liable to return immediately, or very soon, as there is an irresistible propensity to sleep, which, if yielded to, is most likely to be productive of another attack.

CAUSES.

The disease is most frequent among persons of a nervous temperament, and those who are studious or lead an inactive life. It seems principally to arise from indigestion, being usually accompanied with flatulence, acid eructations, and costiveness. Nothing is more likely to produce an attack of the nightmare than going to bed soon after having eaten a hearty supper, and particularly of food of an indigestible or flatulent nature. It only takes place when the person is lying on his back. Great anxiety, abstruse thinking, or anything that oppresses the mind, may be considered also as exciting causes of this disease.

The nightmare has generally been looked upon as a trifling complaint; but it is by no means improbable that some of those persons who have been found dead in their beds were destroyed by it. Those who are subject to attacks of this disease should, therefore, have some person to sleep near them, that they may be immediately awoke on their moaning or making a noise during the fit, as the uneasiness goes off as soon as the patient is roused.

TREATMENT.

Persons subject to the nightmare must abstain from all kinds of food that is either difficult of digestion or flatulent, particularly at supper, they should take regular and sufficient exercise throughout the day, court cheerful society, and avoid gloomy contemplations and intense study, with late hours. On recovering from an attack of the nightmare, or being roused, it may be advisable, if the patient seems distressed by flatulency or uneasiness at the stomach, to give *lavender compound*. If these medicines are not at hand, a table-spoonful of brandy, or salt and water, may be taken. Persons who are young and full of blood, if troubled with the nightmare, ought frequently to take a purge, use a spare diet, and exercise in the open air.

CHAPTER V.

ENLARGEMENT AND PALPITATION OF THE HEART. (*Hypertrophy.*)

This complaint is also called *angina pectoris*. Sometimes the heart is diseased *primarily*, and sometimes *symptomatically*. It is *primary* when there is an organic *affection* of the heart, such as enlargement or alteration of structure by ossification of its arteries. When it is affected by contiguous organs, as the stomach in dyspepsia, or by a collection of serum or water in its investing membrane, it is then *symptomatic*. The walls of the heart become *thickened* or *dilated:* sometimes the coronary arteries become *ossified* or hardened. A physician in the navy has an enormous enlargement of the heart, which has lasted twenty years.

SYMPTOMS.

When there are chronic enlargements, or some real disease of the heart, the following symptoms are present: Palpitation is generally a very prominent symptom; but this may proceed from dyspepsia or debility; there is shortness of breath, particularly from exertion; pain, and a sensation of tightness or stricture of the chest, and pain over the region of the heart; difficulty of laying in a recumbent position, and sudden startings up; a little fatigue, as walking fast, or going up stairs, will occasion distress; the feet begin to swell, the strength fails, the pulse sometimes intermits, the countenance, particularly around the mouth, assumes a pale, haggard appearance, and there is sometimes paroxysms of pain, which are very distressing; in one of these the subject of the disease is liable to be suddenly snatched away. By placing the hand over the region of the heart a great beating of that organ may usually be felt. Most of these are peculiar, however, to water around the heart, and some of them consequent on dyspepsia. The symptoms occur periodically.

CAUSES.

Whatever weakens the heart may have a tendency to bring on these symptoms; also great excitement of the mind, intemperance in eating and drinking, venereal excess, &c.

TREATMENT.

If the disease is symptomatic of some other, as dropsy of the chest or indigestion, then give medicines accordingly If it be a primary affection, direct the treatment to the organs affected. Abstain from every exciting cause, as anger, over-exertion, everything of a heating nature, &c. A rigid course of diet is necessary. Upon an attack of the disease take half a tea-spoonful of *capsicum* in a little sweetened water; this will probably afford immediate relief. *Æther*, *laudanum*, and *tincture of castor*, a mixture of equal parts, and a tea-spoonful taken in a little water, as also *lavender compound*. After the paroxysms have subsided, use preventives; take the *compound powder of jalap* twice a week, apply the Irritating Plaster over the heart and on the spine, and use the *restorative wine bitters*. It is very seldom that a real primary disease of the heart can be cured; but relief is very desirable. Two or four grains of extract of henbane may be given, to relieve the paroxysms, and also a tea-spoonful of salt and water. With a view of preventing the recurrence of the disorder, the patient should carefully guard against passion, or other emotions of the mind; use a light diet, avoiding everything of a heating nature; and take care never to overload the stomach, nor use any kind of exercise immediately after eating. Besides these precautions, he should endeavour to counteract obesity, which has been considered as a predisposing cause; and this is to be effected most safely by a vegetable diet, moderate exercise at proper times, early rising, and keeping the body perfectly open. Angina pectoris is a disease always attended with considerable danger, and in most instances has proved fatal under every mode of treatment. It is stated that several cases of it have been treated with great success, and the disease radically removed, by inserting a large issue on each thigh. *Purgatives* and *emetics* may be given, and perspiration promoted.

CHAPTER VI.

JAUNDICE. (*Icterus.*)

DESCRIPTION.

Jaundice is derived from the French *jaunisse*, yellowness, of *jaune*, yellow; in medicine a disease consisting in a suffusion of the bile to the surface of the body, whereby the whole exterior habit is discoloured. There is also a species of this disease called the black jaundice.

CAUSES.

The immediate cause of the jaundice is an obstruction of the bile in its passage into the duodenum.

SYMPTOMS.

The jaundice first shows itself by a listlessness and want of appetite; the patient becomes dull, oppressed, and generally costive. These symptoms have continued but a very short time, when a yellow colour begins to diffuse

itself over the white of the eyes and nails of the fingers; the urine becomes high coloured with the yellowish sediment; the stools are whitish or gray; the patient's skin is dry, and he generally feels a kind of itching or pricking pain over the whole body. Sometimes the patient has a continual propensity to sleep, but in others there is too great watchfulness; and sometimes the pain is so great that the patient cannot sleep. The pain comes by fits. As the disease advances the yellow colour becomes more and more deep; and even the internal membranes, the bones, and the brain itself, become tinged. All the secretions are affected with the yellow colour of the bile, which in this case is diffused throughout the whole mass of fluids; the saliva or spittle becomes yellow and bitter; the urine excessively high coloured, in such a manner as to appear almost black; the blood itself is said sometimes to appear of a yellow colour when drawn from a vein. In process of time the blood begins to acquire a tendency to dissolution and putrefaction, which is known by the patient's colour changing from a deep yellow to a black or dark yellow. Hæmorrhages ensue from various parts of the body, and the patient frequently dies of an apoplexy; though in some the disease degenerates into an incurable dropsy.

TREATMENT.

If the stomach is much disordered, which is usually the case, we may commence the treatment of this disease by giving a mild portion of the *emetic powders*; after the operation, and the stomach has become settled, give a portion of the pulverized *mandrake root*, combined with a little of the *cream of tartar* and *cloves*, to prevent griping; and the repetition of these must depend upon the obstinacy of the complaint. After these have been given the patient should commence the use of the following preparation: Take yellow root or golden seal, one drachm; bitter root, two drachms; white poplar bark, two drachms; capsicum, one drachm: cover with boiling water; then add a pint of Holland gin: of this let the patient take from half a wine glass to a wine glassful, morning, noon, and night. During the same time the following decoction may be taken: Take the root of dandelion, and bark of barberry root; pound or bruise, make a decoction, and drink freely. Take two or three of the *hepatic pills* three times a day. The diet should be vegetable, light, and nutritious. A raw egg may be taken every morning. Soot tea is likewise very good.

Dr. A. Sherman states that tincture of *blood-root* is a remedy for the preceding complaint; from ten to fifty drops three or four times a day, in water or herb tea.

CONSTITUTIONAL DISEASES.

CLASS XI.

CHARACTER.

By this class we understand those diseases which are not confined to any particular organ, but more or less affect the whole system.

CHAPTER I.

SCURVY. (*Scorbutus.*)

DESCRIPTION.

This disease prevails chiefly in cold, northern countries, especially in low, damp situations, near large marshes or great quantities of stagnant water. Sedentary people, of a dull, melancholy disposition, are most subject to it. It often proves fatal to sailors on long voyages, particularly in ships that are not properly ventilated, have many people on board, or where cleanliness is neglected.

It is not necessary to mention the different species into which this disease has been divided, as they differ from one another chiefly in degree. What is called the *land scurvy*, however, is seldom attended with those highly putrid symptoms which appear in patients who have been long at sea, and which are rather owing to confined air, want of exercise, and the unwholesome salt animal food eaten by sailors on long voyages, than to any specific difference in the disease

CAUSES.

The scurvy is occasioned by cold, moist air; by the constant use of salted or smoke-dried provisions, or any kind of food that is hard of digestion and affords little nourishment: it may also proceed from the suppression of customary evacuations, as the *menses*, *bleeding piles*, &c. It is sometimes owing to an hereditary taint; grief, fear, and other depressing passions, have a great tendency both to excite and aggravate this disease: neglect of cleanliness, bad clothing, want of proper exercise, confined air, unwholesome food, or any disease that greatly weakens the body or vitiates the humours, may cause it.

SYMPTOMS.

Unusual weariness, heaviness, and difficulty of breathing, especially after motion; ulcers of the gums, which bleed; a disagreeable breath, frequent bleeding at the nose, crackling of the joints, and difficulty of walking; sometimes a swelling, and sometimes a falling away of the legs, on which there are livid, yellow, or violet-coloured spots; the face is generally of a pale or leaden colour: as the disease advances other symptoms come on, as decay of the teeth, hæmorrhages, or discharges of blood from different parts of the body; obstinate ulcers; pains in various parts, especially about the breast, dry, scaly eruptions all over the body, &c. At last a wasting or hectic fever comes on, and the miserable patient is often carried off by dysentery, diarrhœa, dropsy, the palsy, fainting fits, or a mortification of some of the bowels.

TREATMENT.

We know no way of curing this disease but by pursuing a plan directly opposite to that which brings it on. It proceeds from a vitiated state of the humours, occasioned by errors in diet, air, or exercise; and this cannot be

removed, except by a proper attention to these important articles If the patient has been obliged to breathe a cold, damp, or confined air, he should be removed as soon as possible to a dry, open, and moderately warm one. If there is reason to believe that the disease proceeds from a sedentary life, or depressing passions, as grief, fear, &c., the patient must daily take as much exercise in the open air as he can bear; and his mind should be diverted. When the scurvy has been brought on by a long use of salted provisions, the proper medicine is a diet consisting chiefly of fresh vegetables of all kinds: the use of these, with milk, herbs, fresh bread, and fresh beer or cider, will seldom fail to remove the scurvy of this kind, if taken before it is too far advanced; but, to have this effect, they must be persisted in for a considerable time. When fresh vegetables cannot be obtained, pickled or preserved ones may be used; and where these are wanting, recourse must be had to vegetable acids. All the patient's food and drink should, in this case, be sharpened with cream of tartar, vinegar, or the muriatic acid. These things, however, will more certainly prevent than cure the scurvy, for which reason sea-faring people, especially on long voyages, ought to lay in plenty of them. Cabbages, onions, and many other vegetables may be kept a long time by *pickling*, *preserving*, *&c.;* and when these fail, the acids recommended above, which will keep for any length of time, may be used. We have reason to believe, if ships were well ventilated, and stored with fruit, vegetables, cider, &c., and proper regard paid to cleanliness and warmth, that sailors would be the most healthy people in the world, and would seldom suffer either from the scurvy or putrid fevers, which are so fatal to that useful class of men: but it is too much the disposition of such people to despise all precaution; they will not think of any calamity till it overtakes them, when it is too late to ward off the blow.

In the course of the disease particular symptoms may arise, requiring a separate consideration. Pains of the bowels are to be relieved by emollients and opiates; oppression at the chest and impeded respiration, by mustard plasters; contractions of the hams and calves of the legs, by fomenting the parts, and by the application of emollient poultices and frictions; ulcers of the gums and looseness of the teeth, by washing the mouth frequently with anti-septic and astringent gargles: ulcers are to be cleansed and healed by washing them with soap and water, or the tincture of myrrh, and then dressed with some ointment, salve, or poultice. In bad cases of ulceration the yeast poultice will be serviceable.

"I have often seen," says a writer, "very extraordinary effects, in the land scurvy, from a milk diet. This preparation of nature is a mixture of animal and vegetable properties, which, of all others, is the most fit for restoring a decayed constitution, and removing that particular acrimony of the humours which seems to constitute the very essence of the scurvy and many other diseases." The most proper drink in the scurvy is whey or buttermilk; when these cannot be had, sound cider or spruce beer may be used. A decoction of the tops of the spruce fir is likewise proper; it may be drank in the quantity of a pint twice a day: tar water may be used for the same purpose, or decoctions of any of the mild mucilaginous vegetables, as sarsaparilla, marsh mallow roots, &c. Infusions of the bitter plants, as *tansy*, *centaury*, *&c.*, are likewise beneficial. All kinds of salad are good in the scurvy, and ought to be eaten very plentifully; as spinage, lettuce, parsley, celery, radish, dandelion, &c. It is amazing to see how soon fresh vegetables, in the spring, cure the brute animals of any scabs or ulcers that are upon their skins. It is reasonable to suppose that their effects would be as great

upon the human species, were they used in proper quantity for a sufficient length of time. "I have sometimes seen," says a writer, "good effects, in scorbutic complaints of very long standing, from the use of a decoction of the roots of *dock*. It is usually made by boiling a pound of the fresh root in six pints of water, till about one-third of it be consumed. The dose is from half a pint to a pint of the decoction every day; but in all the cases where I have seen it prove beneficial, it was made much stronger, and drank in larger quantities."

CHAPTER II.

HEAT OF URINE. (*Ardor Urinæ.*)

DESCRIPTION.

From various causes persons are afflicted with heat and scalding of the urine. It often proceeds from venereal, but may arise from various other causes; from inflammation of the kidneys, uterus, gravel, &c.

TREATMENT.

Cooling and mucilaginous drinks must be taken for this complaint. Half a tea-spoonful of the *diuretic drops* may be administered in half a pint of *spearmint tea;* the mucilage of slippery elm bark is excellent. A cooling and spare diet should be used, and all heating kinds of food or liquids avoided. Buttermilk is an excellent article of diet. This course will soon remove the complaint.

CHAPTER III.

GENERAL DEBILITY.

DESCRIPTION.

Persons are many times afflicted with universal languor, debility, or great weakness, without being able to trace it to any particular cause. They complain of a sense of sinking, particularly after a little exercise or fatigue. The appetite is generally good, and there is seldom any pain; nor is any particular organ seemingly deranged.

TREATMENT.

The stomach and bowels must be cleansed, the skin kept moist, and any particular symptoms attended to. I have found the use of the *restorative wine bitters* invariably to benefit or cure this anomalous complaint. From half a wine glass to a wine glassful may be taken three or four times a day. The bowels must be kept regular by the *anti-dyspeptic pills*.

CHAPTER IV.

MARASMUS, EMACIATION, WASTING OF THE BODY, &c.

Marasmus is a disease which affects the young of both sexes. A sluggishness, lassitude on slight exertion, depravity and loss of appetite, wasting of the flesh, fulness of the features and paleness of the countenance, swelling of the abdomen, an irregular and generally a costive state of the bowels, a change in the colour and odour of the fæces, fetid breath, swelling of the upper lip, and itching of the nose, mark the beginning of the disease. When these symptoms have continued for some time, they are followed by alternate paleness and flushings of the countenance, heat and dryness of the skin, feeble and quick pulse, thirst, fretfulness, increasing debility and disturbed sleep, during which the patients grind or gnash their teeth, and are subject to involuntary starting, and twitching of different muscles. Every case of marasmus does not necessarily include all the symptoms enumerated. Different combinations of them give a variety of the disease, which is, however, in general, readily known and distinguished. Marasmus appears most commonly among weak and infirm children, whether they are so from delicacy of constitution or from incidental causes. It is particularly prevalent in large and populous cities, where children are deprived of ready access to exercise in pure air, and sicken and pine; or when they are confined in crowded and airless school-rooms. Children who are employed in manufactories, where their occupation and confinement are such as to weaken and enervate them, are also liable to be attacked with this disease. Irregularity in diet and improper food likewise give rise to marasmus. It prevails most commonly in autumn, the season which affords opportunity for eating unripe fruit and vegetable articles.

TREATMENT.

Examine all the organs, and, if any are found diseased, direct the treatment to them; otherwise treat it on general principles. Give *mandrake* or *antibilious physic* twice a week. During the time *restorative wine bitters* may be given, except the fever be too great; and let the child use nothing but a *milk* and *vegetable diet*. Use the tepid salt water bath every day or two. If not inconvenient, bathe the whole surface with salt and water. If the symptoms arise from worms, give medicines to expel them.

CHAPTER V.

MERCURIAL DISEASE AND SALIVATION.

DESCRIPTION.

The symptoms of this disease are too well known to need description; they are detailed in the first part of this work, under the head of *Pernicious effects of mercury*. I may remark, however, that there is soreness of the

gums and mouth, looseness of the teeth; swelling, and sometimes protrusion and inflammation, of the tongue; constant and profuse discharge of saliva or spittle, wasting, &c. If those who give this poison to cure disease are not *woful quacks*, then I do not understand the meaning of the term "quackery."

TREATMENT.

I was about to recommend the same treatment in this as in ordinary poisons, but that would not do, as it is much worse than most kinds; other poisons can be immediately dislodged from the stomach by an emetic; but this subtle poison insinuates itself into every part of the system, and diseases the fluids so extensively that its effects cannot always be easily removed.

When the practitioner is called to the patient, if he is still using mercury in any form, he must order it to be immediately discontinued. A cooling gargle is to be prescribed for the mouth, and, as soon as the patient can swallow, let him take *cream of tartar* and flowers of *sulphur* once or twice a day; this will check the salivation and counteract the effects of the poison. The greatest suffering is experienced in consequence of taking cold after the use of it: when this happens, let perspiration be promoted. When the mercurial rheumatism is produced, and the joints are stiff, let the *alterative syrup* be freely taken; an infusion of *burdock seed* is also very good. A little sulphur may be mixed with Venice turpentine, spread upon linen, and laid upon the parts affected; after which let a strengthening plaster be applied: but it is exceedingly difficult to remove the consequences attending such lamentable mal-practice.

CHAPTER VI.

YAWS. (*Frambœsia.*)

DESCRIPTION.

Yaws is a disease peculiar to the negroes in the West India Islands, said to be imported from Africa. It is propagated by contagion. It occasionally attacks white people, but they are not so liable to it as the blacks. Like the small-pox, it only affects the person once during life.

SYMPTOMS.

Pain in the limbs, back, and joints, with debility, chills, fever, headache, and loss of appetite. After a few days there is an eruption of pustules; when these fall off, more appear, attended with fever. They are at first very small, but increase to the size of a six cent piece, from whence arise excrescences, that discharge a glutinous fluid, which forms a disagreeable *scab*. The complaint continues several weeks.

TREATMENT.

"Having clearly ascertained the disorder to be the yaws," says an experienced physician, "the negro ought to be sent immediately to some very private part, where he can have no possible communication with such as

never had it. This precaution is by no means sufficiently attended to, as those who labour under the disease are too frequently suffered to associate and mix in friendly intercourse with other negroes, by which means it is propagated from one to another, instead of being eradicated. During the eruptive stage of the disease we are to assist the efforts of nature in determining the noxious matter to the surface of the body, by giving some mild *diaphoretic*, which may be washed down with about half a pint of the *decoction of herb tea*. With these remedies the patient should make use of a warm bath about twice a week, confining himself at the same time to a vegetable diet. He ought to be comfortably and warmly lodged, and his system be invigorated by taking daily exercise proportioned to his strength. In the second stage of the disease, when the eruptions begin to dry off, it will be advisable to employ purgatives, so as to produce an alterative effect. The alterative syrup may be used at the same time. Both are to be continued until the scabs become perfectly dry and fall off; at which period they are to be omitted, and then a gentle *purgative* should be given. It has already been observed, that there usually remains one large eruption after all the rest have died away; and this, by degenerating into a foul ulcer, discharges an ichorous matter. The best application for its cure is the brown ointment, and a suitable wash. From the thickness of the cuticle in the feet, when the yaws appear there, the discharge is apt to be confined. When they break they are difficult to heal, often ulcerating the whole sole, and thereby rendering the person incapable of walking. A poultice of the *elm bark*, and *black salve*, are the best applications in such cases. Hard swellings of a very painful nature, which do not suppurate, sometimes appear likewise in the soles of the feet as a consequence of the yaws, and occasion lameness: to remove them the patient should bathe his feet in warm water until the swellings become somewhat soft; they then should be touched by the *caustic potash*, which produces an eschar and sore, that are readily healed by dressing with a *yeast poultice*.

LOCAL DISEASES.

CLASS XII.

CHARACTER.

By this class we understand such diseases as are located more especially in some particular part of the body, but not affecting apparently any particular organ.

CHAPTER I.

LUMBAGO.

The disease is a species of rheumatism that is more particularly concentrated in the small part of the back or the lower part of the spine. It causes great weakness or pain, with difficulty of stooping, and often of walking.

The treatment of Lumbago is the same as that recommended for common

rheumatism The part may be bathed with the *tincture of capsicum* or Cayenne pepper, and, if this does not relieve, the *rheumatic liquid;* after which let a strengthening plaster be applied.

CHAPTER II

WORMS. (*Vermes.*)

DESCRIPTION.

These are chiefly of three kinds, viz., the *tænia*, or tape worm; the *teres*, or round and long worm; and the *ascarides*, or round and short worm. There are many other kinds of worms found in the human body; but as they proceed, in a great measure, from similar causes, have nearly the same symptoms, and require almost the same method of treatment as these already mentioned, we shall not spend time in enumerating them.

The tape worm is white, very long, and full of joints. It is generally bred either in the stomach or small intestines. The round and long worm is likewise bred in the small guts, and sometimes in the stomach. The round and short worms commonly lodge in the *rectum*, and occasion a disagreeable itching about the seat. The long round worms occasion squeamishness, vomiting, a disagreeable breath, gripes, looseness, swelling of the belly, swooning, loathing of food, and at other times a voracious appetite, a dry cough, convulsions, epileptic fits, and sometimes a privation of speech. These worms have been known to perforate the intestines, and get into the cavity of the belly. The effects of the tape worm are nearly the same with those of the long and round, but rather more violent.

Andry says, "The following symptoms particularly attend the *solium*, which is a species of tape worm, viz.: swoonings, privation of speech, and a voracious appetite. The round worms, called *ascarides*, besides an itching of the *anus*, cause swoonings and tenesmus, or an inclination to go to stool."

CAUSES.

Worms may proceed from various causes; but they are seldom found, except in weak and relaxed stomachs, where the digestion is bad. Sedentary persons are more liable to them than the active and laborious. Those who eat great quantities of unripe fruit, or live much on raw herbs and roots, are generally subject to worms. There seems to be an hereditary disposition in some persons to this disease.

SYMPTOMS.

The common symptoms of worms are, paleness of the countenance, and at other times a universal flushing of the face; itching of the nose, (this, however, is doubtful, as children pick their noses in all diseases;) starting, and grinding of the teeth in sleep; swelling of the upper lip; the appetite sometimes bad, at other times quite voracious; looseness; a sour breath; hard swelled bowels; great thirst; the urine frothy, and sometimes of a whitish colour; griping, or colic pains; an involuntary discharge of saliva, especially when asleep; frequent pains of the side, with a dry cough, and

unequal pulse, palpitations of the heart, swoonings, drowsiness, cold sweats, palsy, epileptic fits, with many other unaccountable nervous symptoms. Small bodies in the excrements, resembling melon or cucumber seeds, are symptoms of the tape worm.

Says Buchan, "I lately saw some very surprising effects of worms in a girl about five years of age, who used to lie for whole hours as if dead. She at last expired, and, upon opening her body, a number of the *teres*, or long round worms, were found in her intestines, which were considerably inflamed; and what anatomists call an *intus-susceptio*, or the involving of one part of the gut within another, had taken place in no less than four different parts of the intestinal canal."

TREATMENT.

Calomel is now principally used for the removal of worms; but this medicine, as has been frequently shown, is very dangerous to administer. Calomel or mercury is the basis or principal ingredient of most of the highly reputed nostrums for worms, such as worm lozenges, vermifuges, &c.

The principal indication in the removal of worms is, to excite a healthy action of the digestive organs. It is owing to a derangement of these that they exist; hence there is mucus and disease always present. The following preparation will be found very effectual in expelling different kinds of worms from the system: Take Carolina pink-root, (*spigelia marilandica;*) Alexandria senna, (*cassia senna;*) manna, (*fraxinus ornus,*) of each half an ounce; bruise all, and add to the powder one pint of boiling water. Let it stand a short time, in order to extract the strength of the articles; sweeten with molasses, and add a small quantity of milk. For a child five years old give a gill three or four times a day, on an empty stomach; if this does not purge, increase the dose until the effect is produced.

The cowhage is a good *vermifuge*, given in molasses or arrow-root jelly.

My worthy friend, Dr. W. A. Prince, a Moravian missionary in the Island of Jamaica, informs me that he has found the *cowhage* remarkably efficacious in the removal of worms. He gives a little of the cowhage mixed with arrow-root jelly; say, to a child from one to two years old, one-fourth of a teaspoonful twice a day: every third day he gives a tea of equal parts of common salt and senna, sufficient to purge. Dr. Prince thinks that many diseases proceed from worms. He meets with great success in the treatment of diseases on the reformed system, which shows demonstratively that our practice is as successful in the West Indies as in other parts. He gave one of our anti-bilious purgatives to a coloured woman; after its operation she exclaimed, "O, massa, me never took such medicine before; it brings away so much *cold* and *slime*." One of his neighbouring physicians says he does not fear him; as he gives no mercury, he cannot injure his practice.

Says an ancient author, Dr. Brooks, "To adults I give two ounces of the powder of pure tin, sifted through the finest hair sieve, mixed with eight ounces of treacle, after the patient has been purged with an infusion of senna and manna the Thursday preceding. On Saturday morning I give half an ounce of the tin in two ounces of treacle, and as much on Sunday morning. On Monday I give a dose of the same infusion. Though probably there is nothing in the day, I thought proper to follow the directions of the recipe; and as I found the medicine succeed beyond expectation, I never altered it I gave this mixture to a woman for the tape worm, who had been long troubled with this disease; she had taken many medicines for it, and among

the rest small quantities of this powder. Small fragments had been often brought away, and she was far gone in a hectic consumption. This powder brought away the rest of the *taenia*, as I believe, for she was troubled no more with it. This powder immediately cures the pain in the stomach occasioned by worms, but it does not bring them away till some days after."

Worms sometimes ascend into the throats of children and choke them This symptom may readily be removed by giving a little salt and water, and repeating it occasionally will often expel them, and always is a preventive. This will be found a very valuable remedy for different kinds of worms; and, even should none exist, it will cleanse the stomach and bowels, and prove very beneficial. When small worms infect the rectum, a weak infusion of tobacco, used as an injection, will dislodge them; and the above medicine should likewise be given. Salt and water may be injected also.

Says a physician, "For worms in children, and for pale, sickly children, the following is a good vermifuge, and also tonic: One pint of black alder berries, one pound of cedar or juniper apples: digest for fourteen days in one quart of alcohol, strain, and add one pint of molasses: dose, for a child one or two years of age, one tea-spoonful three times a day. It is rather a pleasant vermifuge, and tonic. Children love it."

A young woman at Peekskill, NewYork, was attended for dyspepsia. After her decease, worms were discharged from her mouth.

Tape Worm.—The symptoms of a tape worm, as related to me by Miss Dumouline, who had been suffering by it for twenty-five years, are as follows, communicated to the author for this treatise:

It commenced at the age of ten, and afflicted her to the age of thirty-five. The worm often made her distressingly sick at the stomach, and she would sometimes vomit blood, and was suddenly taken ill, and occasionally when walking. It caused symptoms of many other diseases, great wasting of the flesh, &c. Her appetite was very capricious, at times very good, and again poor for months, during which time her symptoms were aggravated: sickness, vomiting, great pain in the chest, stomach, side, and bowels, dizziness, heaviness of the eyes, motion in the stomach and bowels, beating or throbbing in the bowels, and so miserable that she feared it would destroy her; a sense of fulness or swelling of the stomach and bowels; and, when she wore anything tight, or laced, it caused great distress. The worm appeared to rise up into her throat and sicken her; and her general health was very bad.

At intervals pieces of the worm would pass from the bowels, often as many as forty during the day, all alive, and would swim in water. This generally occurred some time after taking medicine.

TREATMENT.

This patient states that she had employed twenty physicians, at different periods, and taken a hundred kinds of medicine, but without expelling the worm; under these circumstances I commenced my treatment. She had taken spirits of turpentine, which she could not retain upon her stomach. After having administered various preparations, I prescribed the following, so highly extolled for common worms by my friend Prince, a Moravian missionary in the Island of Jamaica, with whom I have been in the habit of corresponding for years, and who is a devoted friend to the reformed system; it occurred to me that it might be useful for the tape worm as well as for others: *Cowhage* stripped from the pod, a small tea-spoonful given three times

a day, fasting, in a little arrow-root jelly; then occasionally a purgative of *mandrake*. In connexion with this I directed her to eat freely of *garlic* and common fine salt. I gave these under the belief that each possessed vermifuge properties, without ever having administered them for the tape worm. After having taken them for some time, all her unfavourable symptoms ceased, and subsequently the remaining portion of the worm passed from her, lifeless; a circumstance which never occurred before.

She immediately recovered, and has since retained her health, and there is no evidence that there is any remaining. This patient states that the worm which passed from her during the time she has been afflicted with it would fill a *peck measure*, and reach *one mile* in length. Her relief and gratitude may be better expressed than described. A portion of this worm I now have in my possession. Annexed is a plate of it.



When once the tape worm begins to pass the bowels, care must be taken not to break it off, otherwise it will grow again, as it has this peculiar property. It should be wound around a stick or something else, and very moderate extension made upon it whenever there is a motion of the bowels.

The ethereal oil of *male fern* is highly extolled for the removal of tape worm: dose, one drachm twice a day; the second day a powerful physic. The lowest diet to be taken.—*Weisman.*

A merchant in Providence had voided portions of a tape worm for twenty years. He had tried various medicines to no purpose, till he took a strong decoction of sweet fern, (*comptonea asplenifolia*,) taking large quantities daily for several days; then taking a brisk purgative, (*mandrake* is good.) Would not the same plant be good for all kinds of worms?

The tape worm is sometimes found in animals. Mr. Holdridge informs me that he once killed a sheep, and, upon opening the intestines, found a tape

worm throughout the whole extent. The sheep was well fed, but could not be fatted.

Doctor Lobstein's Remedy for Tape Worm.

1.

Rp: Calomel gr. xii.
conchæ s. igne ppt. ℥j.
m. f. pulv.
d. s. No. 1.

2.

Rp: Ol. anrydal. dulc. ʒj.
S. No. 2.

3.

Rp: Gum. gutt. gr. × × × vj.
Pulv. card. Bened. ℥j.
— rad-angelicæ
— marchionis epilept au gr. viij.
m. divid. in iij. part. acq.

4.

Rp: herb. card. Benedict. Pugill iij. S. No. 4.

After a little supper the patient may take the powder No. 1, in the evening, with cold water; half an hour after take No. 2; the following morning take of the powder No. 3, which commonly excites a little vomiting and purging; between this time drink a cup of the tea No. 4; two hours after, when the worm is not expelled, take the 2d powder, and two hours after the 3d powder.

Should any one be disposed to use the above preparation of the late Dr. Lobstein for tape worm, it will be necessary to procure it of a German apothecary, one or two ingredients not being in common use.

This treatment expelled a tape worm from a person in this city, eighteen feet long, which I have seen, and is now in the possession of Dr. James Vere.

The spirits of turpentine has also removed it. It may be taken daily in table-spoonful doses, mixed with milk, and sweetened.

Two pills of common *brown soap*, size of a pea, taken twice a day, cured a person in England of the tape worm when all other means failed.

CHAPTER III.

OZÆNA.

The *ozæna* is an ulcer affecting the nostrils, and from which there is an acrid or corrosive discharge, very fetid, and often mixed with a bloody mucus.

TREATMENT.

Use the *cephalic snuff*, and apply up the nose the *brown ointment;* at the same time smoke the following: *Black pepper*, one tea-spoonful; sage, fine, a table-spoonful: mix. Smoke two pipesful a day, and force the smoke through the nostrils, the same as for catarrh in the head.

Herpes's ozæna: taint from vaccination, &c. I have just seen a patient for whom I prescribed, about a week since, for an affection of the nose,

which has apparently arisen from impure vaccination. The discharge has been so corrosive, that it has excoriated the parts with which it has come in contact, and there was a herpetic eruption of the same nature on the face. I prescribed the *celandine wash*, *brown ointment*, capsicum and sage to smoke, and force the smoke through the nostrils. It has nearly removed all the complaint in so short a time.

CHAPTER IV.

HEADACHE. (*Cephalalgia.*)

DESCRIPTION.

HEADACHE is of two kinds, *primary* or *symptomatic*. It often arises from a morbid state of the stomach, in consequence of an effusion of bilious matter; when this happens, it is termed sick headache. It frequently proceeds from a determination of blood to the head, as well as from many other causes.

TREATMENT.

In treating the headache we must first ascertain the cause of it: if it proceeds from the stomach, our attention must be directed to that organ, and it must be cleansed by a gentle *emetic*, or, as a substitute, a *purgative*, and which must be occasionally repeated.

The feet must be often bathed in warm water, to equalize the circulation, particularly when it arises from a determination of blood to the head, as in incipient apoplexy.

When it proceeds from irritability of the nervous system, take nervines, such as the *valerian*, *diaphoretic powders*, &c. Equal parts of *blood-root* and *bayberry*, pulverized, may be used as a snuff. Smoke capsicum and sage, and force the smoke through the nostrils, as in catarrh.

A case of many years' standing of sick headache, which had resisted all remedies, and about every three months occasioned retching or vomiting of three days' continuance, has been nearly cured by taking a table-spoonful daily of our compound tincture of senna, (*elixir salutis.*)

The late Dr. Valangin used frequently to cure headaches by desiring the patient to snuff up a mixture of the yellow oxide of mercury, (formerly called Turbeth mineral,) with a little sugar. It often produces a prodigious discharge of serous fluid from the nose, without sneezing. Dr. Buchan has also often cured obstinate complaints in the head by the same means. Turbeth mineral is of a very bright yellow colour, and it is possible that a solution of it may be the celebrated East Indian remedy for headache.

If the pain at any time be very severe, let mustard plasters be applied between the shoulders and the bottom of the feet. Diet is very necessary in this disorder. It should be vegetable, cooling, and light, and such as easily digests. Stewed fruit is very useful, as it tends to regulate the bowels, which is very necessary.

Bathing the crown of the head every morning in cold water has proved a sovereign remedy for headache Captain Snow informs me that he laboured under this complaint for a length of time, and several physicians prescribed bleeding for it. During his residence in the West Indies he applied to an

elderly Scotch physician, who objected to bleeding, and pronounced it ignorance, and recommended him to bathe his head every morning in cold water, which he did, and has continued for many years, and it has effected a perfect cure; and that, no doubt, by *equalizing* the circulation, and the sympathetic and healthy effect produced upon the stomach, upon which he states it always has a sensible effect.

Æther applied to the head as a wash cured a person suffering under a very acute attack of nervous headache.

CHAPTER V.

OBESITY OR FAT.

John Mason Good, the justly celebrated author of "The Study of Medicine," "Book of Nature," &c., says, with regard to the cure of obesity or fat, "that, as a life of indolence and indulgence in eating and drinking is highly contributary to obesity, the remedial treatment should consist in the use of severe, regular, and habitual exercise, a hard bed, little sleep, and dry and scanty food, derived from *vegetables alone*."

"Generally speaking," says the same noted author, "the diet and regimen just recommended, with a spare allowance of water, will be sufficient to bring down the highest degree of adipous corpulency. Of this we have a striking example in the case of Wood, of Billerica, in Essex. Born of intemperate parents, he was accustomed to indulge in excessive eating, drinking, and indolence, till, in the forty-fourth year of his age, he became unwieldy from his bulk, was almost suffocated, laboured under very ill health from indigestion, and was subject to fits of gout and epilepsy. One would think all these enough for one person to bear. Fortunately a friend pointed out to him the life of Cornaro; he instantly resolved to take Cornaro for his model, and, if necessary, to surpass his abridgments. With great prudence, he made his change from a highly superfluous to a very spare diet, gradually—first diminishing his ale to a pint a day, and using much less animal food, till at length, finding the plan work wonders in his renewed vigour of mind as of body, he limited himself to a simple pudding made of sea biscuit, flour, and skimmed milk, of which he allowed himself one and a half pounds, about four or five o'clock, for his breakfast, and the same quantity for his dinner. Besides this, he took nothing either solid or fluid, for he had at length brought himself to abstain even from water, and he felt much easier without it. He went to bed about eight or nine o'clock, rarely slept for more than five or six hours, and hence usually rose at two o'clock in the morning, and employed himself in laborious exercise of some kind or other till his breakfast-time. By this regimen he reduced himself to a middle-sized man, of firm flesh, well-coloured complexion, and sound health."

NETTLE RASH, BLIGHTS, HIVES.—This is an eruptive or cutaneous disease, which makes its appearance on the skin suddenly, in large, red, diffusive patches, white in the centre, with intense itching and burning, resembling the sting of the nettle. It appears in different parts of the body, for an hour or two at a time; then suddenly disappearing, and altogether—usually in one or two days.

Treatment.—Bathe the parts with *spirits;* and a little *gum camphor* may be added, or *chloroform*. Drink *saffron tea*, and take a portion of physic.

PART FOURTH.

SURGICAL DISEASES.

CHAPTER I.

Connexion between Physic and Surgery.—It has been, and still is, customary to make a distinction between physic and surgery, committing the two branches to different sets of men. But this distinction is not well founded, since it is impossible to decide where either branch begins or ends. Internal diseases have been assigned to the physician—external to the surgeon. Unfortunately for this notion, nature has connected the outside and inside so closely, that we can hardly say where one ends and the other begins Internal causes produce external diseases, as we see in erysipelas, carbuncle, &c.; while external agencies affect internal parts, as in rheumatic affections and wounds; and injuries produce fever: by keeping these branches separate, two persons would be required to treat one patient for the same disease or accident.

Sympathy.—The doctrine of sympathy should be well understood, otherwise a wrong opinion may be formed of diseases. Such is the intimate connexion between distant parts, that if one organ is affected, another, contiguous or remote from it, may also be disordered; for instance, if the stomach is deranged, it may cause a sick headache; if the liver is disordered, the stomach, bowels, head, and shoulders, by sympathy, feel the effects. The irritation of the womb, in pregnancy, causes vomiting, as also will an injury of the head In the white swelling of the knee the pain may be felt in the hip. In treatment the attention must be directed to the *primary*, and not to the *symptomatic*, *disease*.

CHAPTER II.

INFLAMMATION.

Character.—Increased heat, redness, swelling, pain, and tension.

Causes.—Cold, wounds, or anything which irritates the part.

Symptoms.—There is redness, swelling, pain, heat, shooting, and throbbing. The skin is dry and hot; fever; tongue coated; and the secretions diminished.

Termination.—It terminates with or without suppuration, adhesion, and rarely by mortification.

Treatment.—First remove all exciting causes, as splinters, and all extraneous substances. To reduce inflammation, let all the *secretions* and

excretions be restored; for this purpose give occasionally a *purgative*. *Senna* and *manna*, and *cream of tartar*, are very good. Perspiration must be promoted. Where there is local inflammation, apply a decoction of *bitter herbs*. Apply poultices also to the inflamed part; and none equals the *slippery elm bark* for all kinds of inflammation: there has been nothing discovered that will bear any comparison, in point of utility, with it. The powdered bark may be mixed with rain water, milk, and sometimes with weak *ley*, to the consistence of a poultice, and applied either cold, tepid, or warm, as upon trial may afford the most relief; tepid in general is preferable. For white swellings, felons, and inflammation of the breast, the bark mixed with *ley* is the best. I sometimes mix it with *beer* or *ale*, and occasionally with a decoction of *catnip*, *wild indigo root*, *sassafras*, and such other agents as the peculiar character or stage of the inflammation may require. The powder of *linseed* or *flaxseed*, pulverized, forms a very good poultice in many cases. Indeed, in inflammation attending carbuncle, I have found this poultice combined with an equal part of slippery elm, preferable to any other; it has the property of very much facilitating suppuration. As much hot water is to be put into a basin as the size of the poultice requires, and then the linseed powder and *elm bark* are to be gradually mixed with it till the mass is of the proper consistence. A small quantity of sweet oil may be added, to keep it longer soft and moist. *Fomentations* are only to be considered as temporary applications, while poultices are permanent ones. As regards the temperature of poultices in their application to inflamed parts, no definite direction can be laid down. As a general rule, however, I have always found that they answer best when applied warm or tepid: when applied cold a more immediate or temporary benefit may sometimes follow, but the sedative effect of the cold after a time seems to prove injurious; the only sure criterion is, the feeling and comfort of the patient. Poultices should never be suffered to get dry and hard, but often be renewed or changed; they will keep moist much longer, if the muslin or linen on which they are laid be first moistened. I have tried various other kinds, such as bread and milk, linseed, &c., and find, compared to the *elm*, that they dwindle into insignificance; it is the most soothing, softening, relaxing, and refrigerant, and acts the most speedily, of any other production; and it is the most universal in its application, being suitable for every species of inflammation. It usually changes the appearance of the inflamed part from a high degree of redness to perfect whiteness; at the same time it diminishes the swelling, and lessens irritation and inflammation; and it is the only article that will seldom or never disappoint the practitioner in its effects. Even where other kinds of poultices are indicated, this, in combination, forms a most valuable auxiliary.

Dr. Shanklin informs me that it is a popular remedy in North Carolina; a decoction is used mixed with bread or Indian meal, and applied; not knowing, or being able to procure, the pulverized bark. He says he is seldom called upon to treat any kind of inflammation, the inhabitants curing it simply by the use of the elm bark. Where there is great pain it may be necessary to give anodynes. Rest must be enforced, and a very light vegetable diet; Indian meal gruel is good.

Suppuration.—When suppuration or matter has evidently formed, which may be known by the softness of the parts and fluctuation, it may sometimes be necessary to puncture the abscess; after which still apply the poultice as long as there is any inflammation; then apply the *black salve*. *For Erysipelas and Inflammation, see St. Anthony's Fire.*

CHAPTER. III.

MORTIFICATION.

Symptoms.—If it supervene on inflammation, there will be acute, and constant pain, great anxiety, often delirium, followed by a sudden cessation of all inflammatory symptoms. The part before tense now becomes flaccid, of a livid colour, losing its heat and sensibility. Blisters are formed, under which appear brown spots. The parts soon become black, and acquire a fetid smell. If the event proves favourable, the mortified portion is completely surrounded by a white line, about which pus (matter) is formed. The dead part now loosens and sloughs out, leaving a suppurating ulcer. If, on the contrary, the termination be fatal, the mortification rapidly extends; great constitutional irritation arises; the pulse becomes small, rapid, and irregular; there is a fixed flush on the countenance, with great anxiety and prostration of strength; and death soon ensues.

Mortification is sometimes produced without previous inflammation, by bloodvessels choked by pressure, long-continued cold, long-continued pressure, violent bruises, debility, &c.

Treatment.—When inflammation has been properly treated, it will seldom or never terminate in mortification. But, when called to treat it, our object should be to arrest and prevent any farther extension of it by means both local and constitutional. If it be connected with, or dependant on, inflammation, means must be taken to subdue that inflammation. If debility of the system has been a predisposing cause, it must be remedied by a more wholesome regimen, and the strength of the patient be supported by stimulants, such as wine and a nutritious diet. Tonics also should be administered; the *wine bitters* may be taken, and a glass of *yeast* three or four times during the day.

Local Applications.—When blisters or *vesicles* appear upon the part showing a disposition to gangrene, or when sloughing actually takes place, the following poultice will separate the living from the dead parts, and put a speedy check to it: Take *yeast*, a sufficient quantity; stir in *slippery elm bark*, to form a poultice of the proper consistence: apply tepid, and often renew. This will correct the fœtor of the parts, and assist the powers of nature to separate the mortified from the living flesh. I have not known this application to fail in a single instance, except in one case of dry mortification, from which a person seldom recovers.

It is now customary to amputate a limb in cases of mortification, but with what propriety I am unable to decide, as it is easily arrested by very simple means; and where it cannot be, I have no evidence that the knife would save the life of the patient. If a proper course of treatment will not cure, there will be such a faulty state of the constitution, or in the ulcer or wound itself, that, should amputation be performed, the stump will slough, or the patient will sink from irritation or the direct consequence of the operation.

It does appear to me passing strange that surgeons should direct us to wait till mortification has stopped before we amputate. We are directed to remove a limb for mortification, and at the same time we are directed not to do it until this very mortification is arrested, or until a line of demarcation is formed, or a separation takes place between the dead and living parts!

Now, I ask, how can this doctrine be reconciled with reason, common sense, philosophy, or correct principles of surgery? It does appear most absurd to me, however it may appear to others; and this absurdity and inconsistency is more strikingly exemplified in practice, or at the bed-side of the patient.

The mortified limb must be bathed three times a day in *warm weak ley*, one hour each time. The application of a *ley poultice* has proved a sovereign remedy in mortification, as well as in *lock-jaw*. It is not only well calculated to prevent, but to cure it when it has taken place. After having been applied a short time, it has often separated and detached large portions of mortified flesh, and brought about a healthy action. The *elm bark* should be mixed in *leeched warm ley*, and applied tepid.

A case now occurs to me where this poultice arrested the disease, seated on or near the breast of a female, and detached such a portion of dead flesh, that the opening left was as large as a common sized tea-cup.

Another case occurs to me, of a young man who was expecting to have his leg amputated, but before his surgeon arrived, the above poultice was applied, which arrested it, and he recovered.

Dr. Ferris, who was noted for a successful method of treating mortification, made use of the following poultice: Scraped carrots and spikenard root, bruised; boil till soft; stir in a small quantity of Indian or oat meal, and apply warm. I have used this poultice but little, and, therefore, cannot speak with much certainty of its effects; but in one very difficult and critical case of inflammation, bordering on gangrene, it changed the character of it, and was attended with a good effect.

CHAPTER IV.

WOUNDS.

A WOUND is a division of the soft parts of the body by different instruments or agents. They are divided into incised, or those done with a sharp instrument; lacerated and contused, when done by a rough instrument, as a saw or stone; punctured, when done by a pointed instrument; and poisoned or gun-shot wounds.

TREATMENT.—*Indications of Cure.*—1. To put a stop to the bleeding.

2. To remove any extraneous bodies that may be present.

3. To effect a union by the first intention; or, if that be impracticable, to promote suppuration.

1st. *The Bleeding.*—In the worst species of wounds to which I have been called I have found the following treatment sufficient to stop the bleeding:

I first ascertain the situation of the vessel whence the blood issues: then I take a pledget of lint, roll it up into a little ball, and press it directly upon the mouth of the artery, (I mean where there is profuse hæmorrhage;) afterward apply lint and small compresses, to secure permanent pressure upon the artery, after which the dressings are to be applied. In general a piece of linen folded thick, of a suitable size, and laid directly over the wound, and a bandage applied, is quite sufficient to stop the hæmorrhage. Occasionally I have applied styptic powders to contract the end of the vessel, produce coagulum, and thus arrest it; for this purpose the *red* or *styptic*

powders are employed, a preparation which is extremely astringent. Salt water, by its astringent and refrigerant effect, is useful; the lint and compresses may be wet with it. When an artery is cut, the blood is of a bright scarlet colour, and gushes from the bleeding vessel in jet, with great force When a vein is cut, the blood runs in an even, unbroken stream, of a dark purple red colour. The bleeding having been suppressed, the next object is, to remove any extraneous matter, such as dirt, bits of glass, clots of blood, &c., which may remain in the wound.

As soon as attention has been paid to the foregoing indications, the practitioner must put the lips of the wound in contact, and take measures for keeping them in this state until they have grown firmly together. The sides of incised wounds are kept in a state of apposition by means of an adhesive plaster, a proper position, the pressure of a bandage, and, in a few particular instances, by the employment of sutures or stitches.

With respect to sutures, as they create pain, irritation, and some degree of suppuration, they ought never to be employed when the parts can be kept in contact without them.

It is wonderful with what celerity union by the first intention takes place under favourable circumstances. In the course of three days a large wound is frequently healed.

After having removed every extraneous substance, and arrested the bleeding, (if there is any,) clean the wound with a soft sponge or cloth and warm water, dry the skin, and bring the sides neatly and closely together with straps of adhesive plaster; the straps should be an inch wide, and extend across the wound far enough to secure it from gaping. The number of straps must be in proportion to the extent of the wound, and a little space between them, to allow the escape of any fluid which may run from the wound. Over the straps should be placed a cushion of soft lint, and over the whole a bandage drawn agreeably tight, and making equal pressure.

Under this dressing a clean cut wound may be expected to heal without the formation of matter, i. e., without suppuraton; and this is what surgeons call *union by the first intention*. A cooling diet and regimen should be observed, and every kind of motion and disturbance of the part avoided. The rest is the work of nature. This dressing should not be removed within two or three days, or longer; frequently wet the dressing with spirits and water, or, which is better, the *tincture* of *balm of Gilead buds*.

It is sometimes the case that, from some cause or other, more or less suppuration will follow, which will very much retard the healing process; when this is the case, and when inflammation takes place, the salve or external plaster must be removed, and a poultice of the *slippery elm bark* applied; after the inflammation has subsided, again apply the salve or plaster. Should *fungus*, or what is termed "*proud flesh*," arise and prevent the wound from healing, it may be sprinkled with a little pulverized blood-root. If this is insufficient to remove it, a few grains of the vegetable caustic must be daily applied. Incised wounds heal very readily.

Contused or Lacerated Wounds.—In many wounds union by the first intention should not be attempted, but allowed to suppurate, in order that the extraneous matter may be expelled. Wounds which are attended with laceration, although free from contusion, cannot always be united by the first intention; because it must frequently be impossible to bring the external parts or skin so much in contact as to prevent that inflammation which is naturally produced by exposure. But even in cases of simple laceration,

where the external influence is but slight, or can be prevented, we find that union by the first intention often takes place.

Many of the remarks on the treatment of simple and incised are applicable to lacerated wounds. There is not, however, much difficulty about bleeding or hæmorrhage, very seldom being much present; but the same attention must be paid to the removal of extraneous substances from the wound, after which the parts must be brought in contact, or as closely together as possible, by narrow strips of adhesive plaster; afterward a pledget of lint, wet in spirits, or the *balm of Gilead*, may be applied; if there is little or no inflammation present, the *black plaster* or *healing salve* should be spread thin upon a piece of linen, and applied, not only over the wound, but to some distance on the adjacent parts. Should swelling or inflammation take place, this plaster must be immediately removed, and a poultice of the *slippery elm bark* applied until they subside, when the salve or plaster may be again used. Attention should be paid to the constitution, and such medicine and diet prescribed as will serve to allay irritation. The bowels must be kept open, perspiration promoted, and a cooling regimen recommended.

Contused Wounds or Bruises.—*They are made by the stroke of a blunt instrument against any part of the body, the skin remaining unbroken; and black and blue spots appear on the bruised part.*

Treatment.—Slight bruises require only to be covered with linen wet with *vinegar* and *wormwood*, boiled together, and applied tepid or cold. In very bad cases a few leeches will expedite the cure. This treatment soon cures.

Punctured Wounds, *made by a sharp-pointed instrument, as by a dagger, bayonet, scissors, &c.* Punctured wounds are not only dangerous on account of their depth, injury of bloodvessels, nerves, or vital parts, but they also frequently give rise to extensive inflammation. Immense agitation of the nervous system, even to lock-jaw, follows.

Treatment.—Punctured wounds are not apt to heal, but form deep-seated ulcers. But as no man can tell whether such wounds will heal or not, and as no harm can result from the attempt to unite them by the first intention, the orifice should be closed with straps of adhesive plaster, and gentle compression applied along the whole course of the wound. Perfect quietude is to be observed. When the pain is severe, an opium pill may be administered, and fomentations and poultices applied. Sometimes under this treatment the wound speedily unites by the first intention. More frequently, however, in cases of deep stabs, the pain is intolerable, and the inflammation runs so high as to leave no hope of avoiding suppuration. In this condition a poultice is the best application. When matter is formed, the treatment must be the same as for suppuration.

I was recently called to a person who attempted to kill himself by running a butcher's knife into the lower part of the stomach. The wound was deep, and the bleeding profuse; it soaked his clothes, and ran down upon the sofa and carpet. I removed his clothes, washed off the blood, brought the edges of the wound together, and secured them by placing adhesive straps longitudinally, and then in the form of a cross, passed a roller around his body, put him to bed, ordered *spirits* to be applied to the wound, and gave a teaspoonful of *laudanum*. He was soon after removed to the lunatic asylum. But, as far as I know, the wound did well. The wound, bleeding, mob, and consternation rendered it truly a tragic and bloody spectacle.

A poultice may be applied to the wound in some cases.

Gun-shot Wounds.—When the ball, or any other foreign matter introduced into the wound, is not carried through, but remains, it ought to be removed, if this can be done without any serious cutting or searching; for such extraneous substances often acquire a fibrous cyst, and cause no disagreeable symptoms. The finger is the best probe for detecting the ball or other foreign body; and when farther search is requisite to find it, the nature of the tissues concerned ought to be carefully considered, since the direction of its course is much affected by those of dense and unyielding structure, as the bones, muscles, and even the skin. The velocity of the ball, and the position of the body when it entered, ought also to be taken into account. The forceps is the best instrument to extract it, when this step is practicable.

It is recommended to dilate all gun-shot wounds; but this practice is attended with very little benefit; on the contrary, with much mischief, except the ball is within reach, and it becomes necessary to remove it.

If there is much pain, swelling, or inflammation, apply a *ley poultice*.

Poisoned Wounds.—*Of the bite of the rattle-snake.*—Nausea; a full, strong, agitated pulse; swelling of the whole body; the eyes much diffused with blood; sometimes copious bloody sweats; fainting; and often hæmorrhages from the eyes, nose, and ears. The teeth chatter, and the pains and groans of the sufferer indicate his approaching dissolution.

Treatment.—*Indications of Cure.*—1. To prevent the absorption of the poison.

2. To counteract its destructive effects when already introduced into the system.

1st. When a person has been bitten by any kind of a snake that is poisonous, as a rattle-snake or adder, a cup should be applied to the part as soon as possible; after it has drawn awhile, use the scarificators, apply the cups again, and thus extract as much fluid as the circumstance will admit.

The efficacy of cupping in poisoned wounds has been well tested in experiments made upon animals which had been bitten; it has been proved that those to which the cups were applied experienced no bad effects of the poison, while the others soon died. This operation prevents the absorption of the poison.

2d. As soon as the wound has been cupped, apply the vegetable caustic, to be repeated twice a day.

3d. Make a strong decoction of the *common plantain*, and wash the wound with it; keep it wet also with salt and water; after which mix it with the *slippery elm bark*, add freely of *sweet oil*, and apply it constantly, or as long as there is any swelling or inflammation. This has proved very effectual in poisoned wounds. The plantain has been found a certain antidote against the bites of different animals. Salt is also very good.

I have read an account of a battle fought between a toad and a snake, in which the former, whenever he was bitten, repaired immediately to a little distance and ate the leaves of the plantain, after which he returned and renewed the conflict. The person who witnessed the scene, after a short time, plucked up the root, and when the animal was deprived of it he immediately died, thus demonstrating the power of the plant. This production forms the basis of a recipe for the cure of poisoned wounds, which was long and successfully used by a negro named Cæsar, residing in one of the southern states; his master gave him his liberty, on conditions that he would publish the recipe. It may be drank internally, and applied externally.

4th. An ounce of olive oil must be taken by the patient every day, and

the cupping repeated. It is now customary to cut out the part wounded; but this is cruel and unnecessary.

A singular case of poisoned wound, from the bite of a rattle-snake, occurred some years since, under the observation of Dr. S. T. Barstow, of Wikesbarre, Pennsylvania, and in some respects is perfectly anomalous.

A lady, in the fourth or fifth month of her pregnancy, was bitten by a rattle-snake; under proper treatment she at length recovered from the symptoms usually consequent upon such wounds. At the full period of gestation she was safely delivered of a fine, healthy-looking child; but immediately on its being applied to the breast, and allowing it to suck, the child assumed the peculiar hues of the rattle-snake, swelled exceedingly, and soon died. She then procured a puppy to relieve her breast, which died in two days of the same symptoms. A lamb was then tried; and, in succession, one puppy and three lambs shared the same fate. Another puppy was then procured, which escaped with its life, but exhibited some of the symptoms which had proved fatal to its predecessors. The lady remained all this time without any symptom of the disease, and had as rapid a convalescence from parturition as is usually observed.

The poison seems to have been excreted by the process of lactation; for the second year afterward she had another child, and though she applied it to her breasts, not without fearful forebodings, yet no evil consequences resulted.

Wounds of the Joints.—In all wounds of the joints it is proper to place the limb in such a posture as to favour the approximation of the sides of the wound; and absolute rest must be enjoined. In every other respect they must be treated as other wounds. When there is a discharge of synovia, or joint water, it may sometimes be necessary to sprinkle styptic powders upon the wound, to prevent its escape; but as the wound heals the discharge usually lessens.

I attended one case where the knee was wounded with a scythe, and there was a discharge both of pus and of the synovial fluid. The application of the *elm poultice* and *black plaster* reduced the swelling and inflammation, the wound rapidly healed, and he soon recovered.

Wounds of the Tendons.—It requires sometimes nice discrimination to detect wounds of the tendons, as they are usually complicated with ulcers. There is a discharge of matter or pus from the sore, and also of a clear fluid resembling joint water; in such cases, instead of exciting a preternatural discharge, as we do in common ulcers, we must reverse the treatment, and make use of such applications as will check this discharge.

I attended a young man, between twenty and thirty years ago, who received a wound of the leg by a cart wheel passing over it, and which was attended by a physician or surgeon of New Brunswick, who stated that it would be a year or two before he could recover, and that a portion of bone must first be sawed off. He was brought to me, a distance of thirty miles, exhibiting, when he arrived, very unfavourable symptoms. He had become very pale and much reduced, and, upon an examination, his disease, which was upon the leg, assumed the appearance or character of a common ulcer, and for such I prescribed. I applied medicine to make it discharge more freely, with a view to bring about a healthy action; but this discharge was attended with a very serious effect, as it reduced him in twelve hours surprisingly, and I could not account for it; but, upon a more minute examination, I discovered two

kinds of matter or fluids issuing from the ulcer; one kind was pus, the other such as issues from a common ganglion, from which I perceived that my treatment was diametrically the reverse from what it ought to have been. I therefore reversed it, and injected, with a small syringe, an astringent preparation, made by adding a few grains of the styptic powder to a strong decoction of the persimmon bark, which immediately checked the discharge, and so changed the character of the ulcer that the patient was soon able to walk, and he entirely recovered, to the great disappointment and mortification of his former physician. When he first came he was unable to walk, I think, even with crutches.

Such is the proper treatment of various kinds of wounds; and no matter in what part of the body they are received, the practitioner, in treating them, is to be governed by the same principles, with such variations as particular and peculiar cases may require.

Wounds of the Head.—Wounds on the head are more dangerous than on other parts, on account of injuring the brain.

In treating wounds of the integuments of the head, the hair must be carefully shaved off, extraneous substances removed, the divided parts placed in contact, and secured by narrow strips of the *improved adhesive* or *sticking plaster*. No matter how extensive the wound is, the separate scalp or integuments must be replaced. In cases where nearly half the scalp has been torn off, and covered with dirt and splinters of wood, the parts have been cleansed and replaced, and the wound has healed. If the bone is depressed, if practicable, raise it.

Concussion of the Brain.—Sometimes a person will receive a blow on the head, which produces concussion or a stunning of the brain, without any wound or manifest injury; yet it may prove very serious or fatal. In such cases there is great stupor, vomiting, and sometimes total loss of mental power, and bleeding at the nose.

Treatment.—Purgatives and injections, cooling fomentations to the head, bathing the feet, afterward mustard applied to them, and between the shoulders. Rest, quietude, and low diet.

Dr. Valentine Mott, generally a great advocate for bleeding, says, in his Lectures on Injuries of the Brain; "But one thing, gentleman, let me tell you; never be moved by the hue and cry of the bystanders of 'bleed the patient! bleed the patient!' If the experience of forty years is worth anything at all, let it warn you against so dangerous and foolish a practice. If you do, you will rob the brain of that fluid which is to restore it." Will not this remark apply to diseases generally? Does not the abstraction of the vital fluid rob the system of the principal means designed to restore it to health?

Fractures of the Skull.—If there is one or more pieces of bone, with a suitable instrument raise them up; if any are loose, remove them; shave the hair off for some distance around the wound, and then proceed to dress it in the same manner as an ordinary wound. Spirits and water, with other means before-mentioned, may be applied, to keep down the inflammation. The treatment in other respects the same as in *concussion*.

Some surgeons in such cases bleed freely and apply the trephine.

I have little or no confidence in general blood-letting. It produces injury by the debility which it occasions; and, besides, it prevents the restorative

process. Other means are much better to mitigate the violence of arterial action or excessive inflammation.

As regards the trephine, I have still less confidence in it. From all the information I can obtain respecting its effects, I think it has killed *ten* where it has cured one; and I am not at all surprised that Desault, in the last years of his practice, should abandon the use of this instrument altogether, in consequence of the fatal effects which followed its use. Formerly it was very fashionable to trephine for even trivial injuries of the head; but for some years past surgeons have become less partial to the operation, from the notorious bad effects which have followed the operation; but it is still, I regret to say, too much practised. We are directed to trephine, to remove depressed pieces of bone, in order to relieve compression of the brain; but in doing this we make a compound fracture, and which is more mischievous in its effects than the wound for which the operation is performed.

It is very evident to all who are in the least acquainted with injuries of the head, that patients do well in very bad cases of compression without elevating the bone; that they recover and do well, when this very operation, under similar circumstances, proves fatal; and it can readily be accounted for: two severe wounds of the head are much more likely to kill a person than one. It is hardly possible to bore a hole in a person's skull down to the dura mater, or its vicinity, and not produce a dangerous wound. But when this is done in addition to a previous serious injury, what besides can we expect but fatal consequences. It is hardly possible that irritation, inflammation, or suppuration will not supervene.

In compression from a depressed bone we may apply the old maxim: "of the two evils, choose the least." If the pressure on the brain be an evil, and if the operation is still greater, would not common sense dictate to us the propriety of pursuing that course of treatment which we know, by experience, is attended with the least danger? Another objection to the use of the trephine is, that it is often extremely difficult to discriminate between concussion and compression of the brain. Hence there is no sure criterion for performing the operation.

"I once saw a woman," says Dorsey, "who had been assaulted by a lunatic, and struck forcibly with an iron bar: I found her skull fractured near the junction of the parietal bones, a depression existed, which in one part was full half an inch below the natural level, and yet none of the usual symptoms of compressed brain occurred, and the fracture healed up without any dressings, except a superficial pledget." Similar cases are recorded.

"If the inflammation comes on," says Sir Astley Cooper, "the patient will generally die, whether you trephine or not;" and it is added, that the operation will even be likely to increase the inflammation which has been excited by a depressed portion of the skull. "The rule," says Sir Astley, "which I always follow is this: when I am called to a compound fracture with depression, which is exposed to view, whether symptoms of injured brain exist or not, I generally use an elevator, and very rarely the trephine. I put the elevator under the bone, raise it, and, if it has been comminuted, remove the small portions of bone."—(*Lectures*, &c., vol. i., pp. 304, 308.) Of the propriety of using the elevator in such cases, and also of taking away loose fragments, there cannot be a doubt.

Forty years ago trephining was the plan generally adopted with the patients admitted into the London hospitals; many were submitted to the operation, inflammation of the membranes of the brain supervened, and nearly all died; recovery being very rare.

"I have," says Cooper, "often seen appearances of depression; but the first case which I recollect of in my own practice was that of a child brought into Guy's, who had received a severe blow on the head from a brickbat. All present were prepared for the operation, fully expecting that I should apply the trephine, for they felt convinced that there was considerable depression of bone; when I stated that I should not operate, they exclaimed, 'Good God! I wonder what can be his reason!' This child, after having been freely bled and purged, in two or three days recovered, and the appearance of depression vanished.

"I have been often sent for by my dressers to these cases, and have been requested to bring my instruments with me; but, upon examination, have found that there was no depression of bone, and that the uneven appearance of the scalp was produced by the cause before-mentioned."

"One general principle," says a writer, "I would inculcate, which is, '*that injuries of the head, apparently trifling, should never be neglected;* and, on the other hand, *those which appear most dangerous and alarming should never be despaired of.*'"

I have not myself been fully acquainted with the great resources of nature in curing serious injuries till within a few years past. I have treated some injuries successfully, which seemed impossible to heal, without amputation. One was discharged well a few weeks ago, whose limb was mashed, muscles, tendon, and bone, and all separated, except a small place of the skin, which seemed insufficient for the circulation; by bringing the parts in contact, and securing them by splints, with the use of refrigerant liquids and poultices, recovery followed. This affords a caution how we operate for wounds.

I might detail numerous cases to illustrate these sentiments; there are enough on record, of the same nature, to prove that there is no necessity for trephining, even in compression of the brain.

A case occurs to me, which I attended some time ago, in which a large portion of the os frontis was driven in upon the brain by a stone, causing loss of sense, dilatation of the pupil of the eye, convulsions, &c., and having all the symptoms for which trephining is recommended; and yet the patient recovered by the treatment here laid down. The bone still remains depressed, but without injury.

Some time ago a woman was struck, by her husband, with an iron instrument, which produced an extensive fissure in the skull, with great depression of the bones; notwithstanding, she recovered, by the employment of proper means.

Another case occurs to me, in which a person fell upon a stone from a considerable height, and wounded the head in a most dangerous manner. The wound bled for several hours, and delirium and inflammation succeeded; but, by pursuing the treatment which I recommended, he recovered.

A grocer of this city, a short time since, was thrown from his cart, and so exceedingly injured, that it seemed impossible for him to live even for a short time. Though there were several wounds of the scalp, contusion, concussion, extravasation, if not compression, yet this man has so nearly recovered, that he feels only some chronic affection of the brain.

A man was thrown from a building, and injured his head in such a manner that his life for some time was despaired of. The contusion, concussion, and inflammation were excessive, and which resulted, no doubt, from extravasation of blood or pus; yet the man, under the same treatment, recovered.

A vast number of cases might be mentioned, and given in detail, if the limits of this work would permit.

Mr. Abernethy, who was the most skilful surgeon in London, relates several very bad cases of fracture and depression of the skull, and all recovered without the use of the trephine, by very simple treatment. With all our skill, we have at last to depend almost wholly upon the restorative power of the system for a cure.

Says Dr. Valentine Mott, "You are justified, by the advice of the most judicious surgeons of the age, such men as Abernethy, Sir Astley Cooper, including myself, in leaving cases of simple fracture of the skull with depression of the bone, without compression of the brain, without an operation by the trephine," (or boring a hole in the head.)

Jewet, who sailed to Nootka Sound, on the north-west coast of America, informed me that, on their arrival, an altercation arose with the natives, and all the crew were massacred, except himself. He was struck down with a tomahawk, his skull fractured in the forehead, and nearly killed. He was taken home by the Indians, and *tobacco leaves*, wet in spirits, applied to the wound, under which it healed. I afterward saw him in Philadelphia selling his narrative, when he exhibited to me the scar in his forehead; and, judging from which, the injury must have been very serious.

CHAPTER V.

FRACTURES.

Fracture is a division of bone into two or more fragments, generally occasioned by external violence.

Species.—1. Simple: where the bone has been divided and the integuments remain unimpaired.

2. Compound: where there is a corresponding wound in the soft parts, by which the fractured extremity of the bone becomes exposed.

Causes.—*Predisposing.*—Certain diseases of the bone; as abscess, friability or white swelling, &c.

Exciting.—External violence.

Symptoms.—Some of the symptoms of fractures are equivocal. The pain and inability to move the limb, commonly enumerated, may arise from a mere bruise, a dislocation, or other cause The grating; the separation and inequalities of the ends of the fracture, when the bone is superficial; the change in the form of the limb, and the shortening of it, are circumstances communicating the most certain information. The signs of fractures, however, are so exceedingly various, according to the bones which are the subject of injury, that it cannot be said that there is any one which is invariably present and characteristically confined to them. Loss of motion in the injured limb, deformity, swelling, tension, pain, &c., are usually noticed as forming the general knowledge of fractures. The crepitus, or the grating sensation, or noise occasioned by the ends of a fracture, when they are moved and rubbed against each other, is one of the most positive symptoms of the existence of such an accident.

Treatment of Fractures in general.—In the treatment of fractures in general there are three indications to be fulfilled:

First, to replace or reduce the fractured or broken bones into their original or natural situation.

Second, to secure and keep them in this situation.

Third, to prevent excessive inflammation and pain.

1st. *Examination of Fractures.*—When called to an accident of this kind it will first be necessary carefully to examine, and ascertain whether the bone or limb is fractured; by passing the finger or thumb along the course of the bones, the fracture can generally be felt: there is an unevenness or roughness communicated; a depression; and, upon rotating or turning the fractured limb, a grating noise is heard or a jar felt. Besides, there is an inability to raise or move the limb, and it is usually shorter than the opposite one. Having ascertained the nature of the accident, the next step will be to remove the patient to his residence, or the place where he is permanently to remain; if he is to be removed to any distance, the bones may be temporarily secured by splints. Having arrived, or been carried, to the destined place, preparations must next be made for reducing and dressing. If splints have not already been provided, they should now be made, of a proper width and length, according to the part which requires their application; and they must be properly covered. Next, bandages must be prepared; muslin will answer, but those made of linen are preferable. They should be made three or four inches wide, and several yards in length, and rolled up for use. Having made the necessary preparations, the patient must be placed on a bed or mattress, and gradual extension and counter-extension made, provided one bone rides another, or is not already in coaptation. It is quite erroneous to suppose that force or much extension is necessary in reducing all fractures. In most of those that I have attended the ends of the bones have been in contact with each other, or nearly so, so that very little force has been necessary to be employed. The physician or bone-setter should take hold of the lower limb, if the fracture be upon a limb, while an assistant grasps or holds the upper portion of it; and, upon slight extension, examination should be made to ascertain whether the fractured bones are in a straight or direct line with each other; and also whether the ends of the bones are even, or in no respect depressed one below the other, as these are the distinguishing marks, or the criterion which will enable us to judge whether they are brought properly together, or in coaptation.

"It is true that, when swelling has come on, it is impossible always to decide, by the touch, in what degree we have accomplished our object; we are obliged to judge by the relative position of the joints above and below the fracture, and the general aspect of the limb. I have often desisted from my unavailing efforts to reduce a fractured limb to a right position, the spasms that were excited being so violent as to threaten a protrusion of the bones through the skin; and yet have afterward found no difficulty in bringing the bones into a very satisfactory position. In many cases it has appeared to me that the coaptation has been effected by the action of the muscles themselves; for when, on the subsequent day, I had removed the splints, I have felt so well satisfied with the general position, that I have done nothing more, and each succeeding day found less cause for interference. In these cases, upon the subsidence of the swelling, scarcely any irregularity could be perceived in the outline of the bone."

The bones being properly adjusted, the bandage will be put round the limb, commencing below and rising upward, or from the inferior extremity and continuing it to the top, a suitable distance above and below the place of fracture. After covering the limb, let the bandage be still held, and splints, as many as are necessary, be placed round it, to give security; and let these be held by an assistant. The roller must then be continued over the splints,

until they are sufficiently compressed to keep the bones in their proper places, or in coaptation. I sometimes fold a piece of linen the width of the splints a number of times, to place them upon, in order to prevent undue pressure. When this has been accomplished, tape or narrow strips of linen may be tied round in two or three places, to render the dressings and the fractured bones still more secure.

The bandages must not be put on too tight, as the swelling that always follows will excite too much pain, by impeding the circulation. The limb may now be placed upon a pillow, a little flexed or bent, and kept in an easy and quiet position.

A decoction, made by boiling *wormwood* and *hops* in *vinegar*, may be applied, to prevent and diminish excessive inflammation; and after this application has been continued awhile, it may be discontinued, and equal parts of *rain water*, *spirits*, and *vinegar* be substituted. After the parts have been wet with the liquid, a cloth should be laid over, to prevent too much evaporation.

All that art can do toward the reunion of a fractured bone is, to lay it perfectly straight in its original situation, secure it in that position, keep it easy, and moderate excessive inflammation. All tight bandages are injurious. It is in this way that excess of art does mischief. Indeed, fractures may be successfully treated without either the use of splints or bandages. It is not necessary often to remove the dressings to examine the fracture, provided we have no just grounds to suppose there is any displacement. It is sufficient to remove them occasionally, or as often as the bandages become loose, from a subsidence of the swelling or other causes. As a general rule, once a week is sufficient, except we have some doubt on our minds respecting the bones being in contact or in their proper places. The patient should lay in a horizontal position as much as possible; and should twitchings of the tendons occur, or much pain, an anodyne may be given, particularly at bed-time. When the inflammation and swelling have subsided, the parts may be bathed with *capsicum* and *spirits*, and afterward a *strengthening plaster* applied.

Treatment of Compound Fractures.—In the treatment of compound fractures we are governed by the same principles as in simple fractures. The wound is to be cleared of all extraneous substances, such as splinters of bone, dirt, &c., which should be removed with all possible gentleness, without pain, violence, or laceration; for if the parts surrounding the fracture be farther injured, inflammation will be the consequence, and prove very injurious. There is no necessity for exciting any additional pain by probing, or any harsh means whatever.

Reduction of, or setting, a compound fracture is the same as in the simple; that is, the intention in both is the same, viz., by means of a proper degree of extension to obtain as apt a position of the ends of the fracture, with regard to each other, as the nature of the case will admit, and thereby produce as perfect and speedy a union as possible. The wound being cleared from any loose pieces of bone or other substances, the next thing to be done is, to apply the dressing. The wound must be treated the same as any other; the edges gently brought in contact as nearly as possible, and then two or three strips of adhesive plaster applied to secure them, thus affording an opportunity to heal without suppuration. Lint should be placed over this, and then the *black* or *healing salve*.

Shortly after a bone is broken osseous matter is deposited by the vessels,

which forms a callus and unites it. This shows a wonderful provision of nature to cure such accidents; and so powerful is this principle, that it proves effectual under the most disadvantageous circumstances. A bone will unite even without bandages, splints, or any other application, either internal or external, and that, too, when it is subject to a considerable degree of motion.

I lately had an opportunity of seeing this exemplified in the case of a dog that broke its leg. I daily saw it opposite my office, and had thought of applying splints and bandages, but neglected it. The poor animal kept constantly in motion, and the limb also, with more or less pressure upon the ground. After a short time the bone united, and the dog walked as well as ever; leaving, however, the limb a little crooked or deformed.

A cow also broke its leg; as an experiment, it was set, and bark taken from a tree and applied to the fractured limb, and firmly bound on. It united very handsomely, and the cow was as useful as formerly. A fact of practical importance should be drawn from this; instead of killing valuable animals when a bone is broken, they may, in this manner, be saved, and rendered as serviceable as ever.

When the requisite time for a broken bone to become firmly united has elapsed, it is proper to examine carefully and cautiously the place of the fracture, in order to learn whether the callus has acquired a suitable degree of strength. If the bone should be found to bend in the least at the injured part, the callus is not sufficiently strong, and the limb must be immediately put up in the apparatus again, with a view of preventing a new fracture, or, at all events, deformity.

For the same reason, the patient should not be allowed to make use of his limb as soon as the fracture has united. In fractures of the lower extremity he ought to use crutches, and only let the weight of the trunk bear by degrees upon the injured limb. From neglect of this precaution the callus has been known to be absorbed, the limb to be shortened, and the patient become a cripple. An accidental slip may also produce the fracture again; for the callus, so far from being firmer than the rest of the bone, is at first much weaker.

I have often been astonished to see the treatment practised by different persons in cases of fracture. There is no uniformity among them, and the majority appear to be governed by no principles whatever. One practitioner extends and binds down a limb in the most absurd manner, and thus tortures his patient; while another uses *Desault's* long splint, which is another species of torture. Another confines the limb in a box, with little or no other treatment. A physician in New Jersey practised this method till the wound suppurated, and became filled with worms; and it is proverbial, that in some hospitals in Europe patients with fractures are sure to come out cripples.

A case of this kind of treatment occurred in this city a few years ago, the circumstances of which I will briefly relate. A physician of this city was upset with his gig, and his leg became so entangled as to fracture the *tibia* and *fibula* just above the ancle. It was a compound fracture. Two or three physicians were called, who examined it; one of them, a noted hospital surgeon, (Dr. Cheesman,) proceeded, after the patient was taken home, to treat it; I cannot say to reduce or dress it, for this he did not attempt to do. He left him in the same situation in which he was placed in the house where he was first taken after the accident. A wide splint each side of his leg had been temporarily applied, and these continued without any attempt to reduce the fracture; nor did this surgeon scarcely attempt to give it a superficial examination. It appears that he adopted a new fashion, which has lately

been introduced into some parts of this country for the treatment of fractures, viz., to do nothing, at least under ten days, and then put on an apparatus to make gradual and permanent extension. This patient not being mine, nor having been called to him in the capacity of a physician, I had no right to interfere; besides, the attending surgeon manifested much jealousy and hostility at my presence. I, however, took the liberty, in the presence of the bystanders and two or three of the physicians, to show the true nature of the accident, and thus expose the man's ignorance. I placed one finger upon the upper portion of the fractured bone and one upon the lower, and then pointed out the wide separation existing between them, or the great distance they were apart; and, strange as it may appear, this man was left in this condition for a length of time; and it was by mere accident that he discovered that the fracture had never been reduced. This the patient subsequently communicated to me himself; and stated that he had afterward found it necessary to make an incision in the wound, to let out the pus or matter that had collected.

Now, is it not passing strange, that some of our most noted surgeons are guilty of such mal-practice? From the many accounts that I have heard of a similar kind, I am confident that there is no branch of surgery so badly managed as fractures.

I witnessed a case in New Jersey many years ago, where a person received a compound fracture of the femur or thigh-bone, which proved fatal from the want of proper treatment. The surgeon had received the first medical education in Philadelphia, and he seemed to possess sufficient knowledge to reduce the fracture; but, being unable to subdue the inflammation, the person died.

There is no branch of surgery that is more simple or more easy to treat than fractures or dislocations. I have had my share of practice in them, and should really feel mortified and ashamed if a single case that I ever treated could be exhibited in which there was any deformity or bad management.

I have never yet attended one, no matter what bone of the system has been fractured, but that has been properly set, secured, and successfully treated; no lameness, deformity, or inequality in the bones remaining, nor the least mark or symptom that could lead a person to suspect there had ever been a fracture; and this has been accomplished by the simple treatment here laid down, and which every person, possessed of common sense, can easily put in practice.

Particular Fractures.—I have thus given the general rules by which we are to be governed in the treatment of fractures in general; which, if kept in view, are sufficient to enable us scientifically and successfully to treat particular fractures, or every species or variety of them. I shall, however, briefly notice fractures occurring in various parts of the body, in order, if possible, to throw more light upon the subject, or still farther to illustrate the subject.

Fracture of the Nose or Ossa Nasi.—These bones, from their situation, are much exposed to fractures. The fragments are sometimes not deranged, but most frequently depressed. In order to replace them, the surgeon must pass a female catheter, a ring-handled forceps, or any such instrument, into the nostrils, and, using it as a lever, push the fragments outward; while with the index finger of the left hand he prevents them from being pushed out too far.

Fractures of the Lower Jaw.—This bone is sometimes fractured near the chin, but seldom so as to produce a division of the symphisis. In other instances the fracture occurs near the angles of the jaw. The soft parts are generally contused and wounded.

Treatment.—The fracture or broken bone should be raised, and its end brought in contact with the other; after which a compress is to be laid over it, and on this a piece of pasteboard, previously wet, the better to adapt it to the shape of the jaw; when this has been applied, the whole is to be secured by a proper bandage. The patient must be directed to keep still, and to talk none. The nourishment must be liquids.

I attended, some time ago, a very bad fracture of the jaw, which occurred in a female, in consequence of a blow from a ruffian, and which did remarkably well by this treatment.

Fracture of the Clavicle or Collar-bone.—The clavicle is perhaps as often broken as any bone of the body. Its exposed situation at the upper part of the trunk, its long slender shape, and its being covered only by the common integuments, render it liable to frequent accidents. The fracture commonly occurs near the middle of the bone, as it is here most prominent. The arm of the affected side falls upon the breast, and the patient is unable to rotate the humerus, so that it is impossible for him to raise his hand upon his head. He leans to the fractured side. Crepitation, or a grating sensation, may easily be produced by moving the arm; and the finger passed over the clavicle readily detects the place of fracture. This accident in itself is not dangerous, but becomes so when accompanied with great contusion or laceration of the neighbouring soft parts.

The treatment of this fracture has been the source of much difficulty among surgeons; a vast variety of machinery has been contrived for keeping the fragments together; and a surgeon of great celebrity, Mr. Pelletan, surgeon-in-chief to the hotel dieu, has renounced all applications, and trusts to rest in a horizontal posture as the only remedy.

Treatment.—The object to accomplish in this accident is, to raise the depressed bone and keep it even with the other; to effect which apply a large cushion underneath the arm-pit, and secure it by a bandage carried over the opposite shoulder; then place the arm into a sling, and put a strengthening plaster over the fracture. The patient should keep very quiet. This course of treatment will be found invariably successful, without that inconvenience and torture which accompanies the common practice.

Fractures of the Sternum or Breast-bone.—Fractures of the sternum require common treatment, viz., a piece of strengthening plaster over the situation of the injury; a roller round the chest; quietude, and a low regimen, with a view of preventing what may be considered the most dangerous consequence—inflammation of the parts within the chest.

Fractures of the Ribs.—Simple fractures of the ribs require very simple treatment. The grand object is, to keep the broken bones as motionless as possible; for this purpose a strengthening plaster should be applied to the side, and over it proper compresses; a broad bandage is to be firmly put round the chest.

Fractures of the Thigh.—A fracture of the thigh-bone, or os femoris,

is liable to take place at every point; but it is at the middle third of its extent that fractures mostly occur.

A fractured thigh is attended with the following symptoms: A local acute pain at the instant of the accident; a sudden inability to move the limb; a preternatural mobility of one portion of the bone; sometimes a very distinct crepitus, when the two ends of the fracture are pressed against each other; deformity in regard to the length, thickness, and direction of the limb.

As now treated, almost all fractures of the thigh are attended with deformity; but, when treated according to the principles or directions we lay down, no such deformity will exist.

Various have been the contrivances, such as very long splints, to secure, in its original situation, the thigh-bone in cases of fracture; but I have never seen any that has been, in all respects, well adapted to the nature and state of this accident. Some are useless, others injurious, and the best, which is probably Amesbury's, is so expensive that it is in the reach of but few; besides, it is too complicated: none will answer for general use, except such as are cheap, simple, and of easy application; and such an *apparatus*, combining all these advantages, I now have the pleasure to describe. After studying a length of time to invent something to answer the purpose, I finally succeeded in making one, which I have found, by experience, to be superior to any other; the figure of which is given on page 499. And, when we reflect upon the peculiar or critical nature of this accident, the acknowledged deformity which attends the ordinary treatment, I think I may pronounce the invention (simple as it is) very valuable. The representation given of it will enable any person to form a pretty correct idea of its mechanism, and also the mode of applying it. It may be made by hollowing out two pieces of pine or white wood, of suitable width and length, sufficiently to receive the thigh and the lower extremity, or a suitable portion of it. The upper part, as a matter of course, should be made wider and deeper than the lower, to suit the shape of the limb; and it must be made smooth, thin, and rounded externally, to correspond with the shape of the limb. It is to be fastened in the middle by a hinge, or it may be stiff: it may either be lined or not; or, what will answer the purpose as well, and which I have almost always used, is one made in the same manner, except there is a stiff joint, or a joint that admits of no motion. After the two pieces are excavated or hollowed out, and made very light, they may be both nailed and glued together. Such an angle, however, must be formed as will keep the limb, when placed in it, considerably flexed or bent; this may be made, in cases of emergency, in half an hour; but it it always best to keep one or more on hand ready made. A crooked limb of a tree is an excellent article for making this apparatus in the most simple, cheap, and secure manner; or one may be made of tin, or binder's pasteboard. While the principle of the appartus is kept in view, it is of little consequence of what material it is made, or what the peculiar construction may be, provided the right indication be fulfilled.

Mode of Application.—Having ascertained that the thigh-bone is fractured in any part of it, no matter whether *transversely* or *obliquely*, it must be reduced the same as a simple fracture, by a little extension and counter-extension; and sometimes none at all is necessary. Let a bandage or roller be passed round, beginning just above the knee, and continuing it upward to the groin. Let a splint, properly covered with linen or muslin, be placed on the anterior part of the thigh, the length of the bandage; and one also a little below, on each side of it, leaving sufficient room for the apparatus.

Fig. 1



Representation of the double inclined concave Plane or Splint for Fractures of the Femur or Thigh-bon-

then let the roller be continued over the splints, the same as in other fractures; afterward let the whole leg be carefully placed in this apparatus. Narrow strips are next to be tied round the whole, above and below the knee, in order properly to secure it. An easy bed is now formed for the limb; and such is the convenience and adaptation of the contrivance to the leg, that the patient almost forgets that he has met with the accident. He can change his position, and the position of the leg, without the least danger of displacing the broken bones; he can be moved to any place, if necessary, without injury or inconvenience; and can sit up in the bed or on a chair, take medicine, or safely submit to considerable motion. The limb reposes in its concavity with perfect ease and support; and I have found this fracture apparatus to be remarkably successful in every instance: the bones speedily unite; there is no deformity attending the accident; and I am persuaded that no one, who has ever applied it once, can fail of recommending it, or entertaining a high opinion of its utility. Refrigerant or cooling applications can be applied, the same as in other fractures. It may also be successfully applied in compound fractures, due care being taken to leave an opening over the wound.

After the apparatus has been applied the knee must be turned a little outward, and should rest upon a pillow; which posture, I find, is the most easy and natural. I could here relate cases of its successful application in this species of fracture, but the limits of this work will not permit: I must, therefore, leave it for those who are disposed to make trial of it, which is the best method of testing its merits.

Fracture of the Humerus or Upper Arm.—This bone is frequently fractured near its middle, occasionally in other parts. When the fracture is transverse, and about the middle of the bone, no great derangement takes place; the limb preserves its length, and, unless moved, its form. In oblique fracture the limb is shortened by the action of the muscles, and considerable alteration in its shape is perceived.

Treatment.—The patient being seated in a convenient place, (in a chair or on a bed,) the arm must be a little separated from the body, and carried somewhat forward; then, by an assistant, let gradual extension and counter-extension be made until the arm is straight, and until it can be perceived by the pressure of the finger that the ends of the bones are in contact; then let a roller be put round it, and two narrow and covered splints on the outside, and at a short distance from each other; these must also be secured by the bandage. After this has been accomplished, let the aparatus, or the *angular and concave splint*, be applied inside of the arm, as represented in the figure or plate (p. 497) in which is exhibited the apparatus for a fracture of the thigh. This splint must be made similar to that given as fig. 4, on page 499, and may be manufactured of pine, or any other light wood. It should be convex externally, and concave internally, with a stiff joint, forming an angle of ninety degrees or more, or such obliquity as will enable the patient to place his hand in a sling and keep it directly across the abdomen. After it has been applied, it must be secured by a narrow bandage or strips of linen. This simple apparatus (which I have likewise contrived) as effectually secures the bones in their natural situations as the other apparatus secures the femur or thigh-bone.

One may also be made of binder's pasteboard, by cutting it of a proper width and length, slitting the edges, in order to fit it to the arm; then wet

and apply it; when dry, it forms a perfect and secure bed for a fractured or dislocated limb.

Since writing the above I have been called to a fracture of the humerus or upper arm of a child about eighteen months old, produced by a fall from a chair. The bone was broken immediately above the elbow or the condyles, the fractured bone nearly driven through the integuments, and was attended with a considerable contusion; the fore-arm was twisted, and the bones were so widely separated that the elbow-joint had every appearance of a dislocation, and the swelling soon became considerable. I took a piece of pine board, and split it into two small narrow pieces, about an inch wide and half an inch thick. After cutting them even and smooth, I placed the ends of each together, so as to form a right angle, nearly as represented in the plate annexed, (fig. 4,) and then fastened them together with two

Fig. 2.

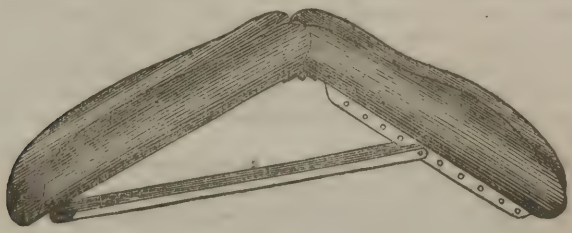


Fig. 3.

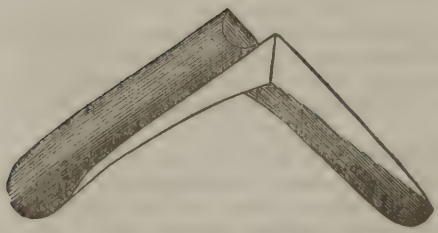


Fig. 4.

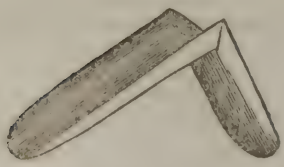


Figure 2 represents the double inclined concave **plane** *or splint.*
Figure 3 represents the same, with a stiff joint.
Figure 4 represents the concave angular splint, for a fracture of the humerus or upper arm.

small nails. After placing them upon the opposite arm for the purpose of ascertaining the proper length, the ends were cut off, and the whole then covered with muslin. This, and one or two splints, and a very narrow roller or bandage, being prepared, the child was placed in the lap of a female, when I took hold of the fore-arm and directed a student to grasp the upper portion of the humerus. I now held it a few minutes, and made very slight extension; the bones and parts gradually came into coaptation, which was known by examination, comparison, &c. With the left hand I held the limb, directly over the fracture, and with the right I applied sufficient of the bandage to cover a considerable portion of the upper and lower arm, passing it over the elbow. I then applied a common splint on the posterior part of the upper arm, extending it down to the elbow, and at the same time placed on a suitable sized compress, the *angular concave splint* on the inner side, each wing or end extending about two-thirds the length of the upper and lower bones, and then continued to pass the bandage the whole length of it. The arm was then placed in a sling, across the abdomen or belly. I directed the arm to be kept wet with a decoction of *wormwood* and *hops* boiled in vinegar, and at the same time ordered it to be covered after the application, to prevent too much evaporation of the liquid: during which an anodyne was administered.

The fracture being very bad, contrary to my usual practice, the next day I removed the dressings and examined it, and found the parts natural, the limb straight, bones in coaptation, swelling much diminished, and the dark colour of the flesh measurably gone, and every symptom favourable.

This morning I have visited the child, and so well is it doing, that, without examination, no one would suspect the child had met with the accident; and I am confident that not the least deformity will ever succeed the fracture.

I have been thus particular in detailing this case, that the practitioner may understand the particulars of the mode of treatment.

Fracture of the Fore-arm and of the Leg.—These bones are very liable to be fractured, either one bone or both; and they are detected the same as other fractures, by a grating noise upon rotating the limb, depression or inequalities in the bones, with difficulty or inability of rotation or movement.

The directions laid down under the treatment of fractures in general are sufficient to enable any one to treat these fractures. Moderate extension and counter-extension must be made, until the bones are brought in a straight line and in contact. The bandage must then be placed round the limb, and narrow compresses, upon which the splints must be placed; after which let the whole be secured by a roller or bandage. If it be a fracture of the fore-arm, let it be placed in a sling; if the leg, then placed upon a pillow.

Fractures of the wrist, hand, and feet are to be treated on the same general principles

CHAPTER VI.

DISLOCATIONS.

Description.—When the bones are thrown from their natural cavities or articular surfaces, the accident is termed a dislocation or luxation.

It may be *partial* or *complete*, *simple* or *compound*. Any person of common sense and resolution can reduce a dislocation, as well as treat a fracture; and it can be done much better on the spot, than to wait till a doctor is sent for, by which time it may swell and be very difficult to reduce. Besides, there is often much ignorance and mal-practice betrayed in the reduction and treatment of dislocations.

Causes.—In general, external violence, sometimes disease, or the white swelling or hip disease.

Symptoms.—The ends of the bone are not in contact, change in the length of the limb, and little or no motion of it. There is usually a prominence or depression.

Treatment.—In general, *extension* and *counter-extension;* but it would appear that this is not always necessary.

A method of reducing dislocations has been practised by many, particularly the family of Sweets, in one of the New England states, for half a century or more, with effect, without any extension whatever; and it is done in such a simple and easy manner, that no assistants are required. These men have obtained or possessed this art, it appears, without anatomical knowledge, or even much education. They have acquired it by a natural genius or turn of mind, aided by extensive practice in the most difficult and complicated cases; and have succeeded when the most celebrated surgeons have abandoned cases as hopeless; and so often, and under such a variety of circumstances, that their superior skill in reducing luxations is placed beyond all doubt, and generally admitted. One of the Sweets was called to a case in this city, many years ago, in which other physicians or surgeons had failed, and succeeded in treating it successfully.

He succeeded likewise in another case, of a dislocation of the hip, and after a professor of surgery and others had exerted great force in vain, and abandoned it as irreducible.

In the case of a Captain Russel, whose shoulder was dislocated, and after the man was dreadfully tortured by the violence exerted by two physicians, who in vain attempted to reduce it, Sweet came, and without any assistance, by a certain motion, (hereafter to be explained,) returned the bone to its original situation in a few seconds.

Having heard so much of the skill of Sweet in dislocations, I was ever anxious to come in possession of it, although some of the faculty affected to despise the man, merely through envy, jealousy, prejudice, or for departing from what they call "a scientific" or orthodox course of practice. An opportunity presented itself, some time ago, to obtain this knowledge. A son-in-law of Dr. Sweet came to this city, who imparted to the students of our school his peculiar method of treating luxations; and, subsequently to this, one of the Dr. Sweets came to this city to practise, and I accompanied him, upon his invitation, to witness his treatment. The method pursued by both of these men I found accorded with each other.

I shall now disclose, or give, the *Sweet* principle of "bone-setting," and afterward state how far it may be successfully applied or practised. 1st. The operation is performed, according to this plan, by the practitioner himself, although in some cases an assistant is required. In order to illustrate the principle, I will give the method of reducing a dislocation of the hip. Instead of it being performed by *extension* and *counter-extension*, it is done by a *compound movement*. The patient must be placed upon a table, a floor, or a bed, with his face upward; then the practitioner seizes the dislocated leg, and flexes or bends it a little, taking hold principally of the knee with one hand and the ankle with the other. After having very much flexed the leg upon the thigh, for the purpose of converting it into a lever, he carries it a little outward; in the next place the thigh is to be gradually abducted; and, lastly, the operator freely pushes the leg upward upon the pelvis, by the knee, toward the face, inclining the leg a little to the opposite side, as represented in the annexed plate, (p. 503.) I noticed that Dr. Sweet, after freely flexing the leg upon the pelvis, rotated it in different directions, to give an opportunity for the head of the bone to pass into the socket.

This is the principle or method to be employed in every species of dislocation; and in this manner he often attempted to reduce dislocations which had been displaced for eight or ten years, and even where the joint was in a state of anchylosis, or stiff; but I never could learn with any degree of success. The elder Sweet, I presume, never attempted anything of this kind; some of his followers being probably more sanguine than their predecessor. I have it from good authority, that some of those who have attempted this practice have caused much serious injury.

After learning and witnessing this practice, I began closely to examine its merits and defects. I have found that the principle is good, but that it has been abused, and often wrongly applied.

It certainly does appear, by numerous cases, that the greatest force that can be applied, even by the pulleys, is not sufficient to reduce some kinds of dislocations, unless the limb be rotated in such a manner as favours the action of the muscles, and thus throw the head of the bone toward its socket.

"After attempting," says Smith, "the ordinary methods by extension, in vain, to reduce a dislocation, he, Sweet, bent the leg upon the knee, seized the leg, and using it as a lever, rotated the thigh a little outward; then he gently abducted the thigh; and, lastly, flexed it freely on the pelvis, by carrying the knee toward the face of the patient." These movements "instantly succeeded, and with little effort of strength." But, to return to the merits of the operation or practice, having availed myself of the benefit arising from a knowledge of the principle, I find that, although it possesses great merit, often of much practical importance, yet it does not, as far as my experience goes, entirely supersede the ordinary method of extension and counter-extension. I therefore have, upon the comparative merits of both methods, adopted *neither* exclusively, but have combined the *distinguishing principles of both.*

1st. Let very moderate extension and counter-extension be made; then let the Sweet principle, or the *compound movement* before-mentioned, with *abduction*, *flexion*, and *rotation*, be practised in connexion with such extension, by which the improvements or advantages are combined, and put in execution at the same time.

The first thing, then, to be attended to, in reducing dislocations, is, the position of the patient. He must be placed, as before intimated, in such a manner that the body will not be subjected to change or alteration; in other



Fig. 5. *Representation of the* Sweet *or lever principle of reducing Dislocations.*

words, his posture or position must be firm and secure. After the patient has been properly placed, the joint or socket whence the bone has been thrown must be firmly and securely fastened by the use of a towel, sheet, or suitable bandage; this should be fastened or firmly held by assistants. The practitioner will now take hold of the dislocated limb, near the seat of it; and he, with other assistants, will make extension, while those who have hold of the sheet, or bandage which secures the socket or joint, will make counter-extension; and it is very important that this extension and counter-extension should be made extremely slow and gradual.

Says a writer, "With respect to the means to be employed for reducing dislocations, it is now generally agreed, among the most eminent surgeons, that force should be only gradually applied. Violence is as likely to tear sound parts as to reduce those which are luxated; it calls up all the powers of resistance to oppose the efforts making by the surgeon. But it is his duty to produce gradually that state of fatigue and relaxation which is sure to follow continued extension, and not attempt at once to overpower the action of the muscles."

The extension should always be first made in the same direction in which the dislocated bone is thrown; but, in proportion as the muscles yield, the bone is to be gradually brought back into its natural position. Thus, the head of the bone becomes disengaged from the parts among which it has been placed, and is brought back to the articular cavity again, by being made to follow the same course which it took in escaping from it.

Extension will prove quite unavailing, unless the bone, with which the dislocated head is naturally articulated, be kept motionless by counter-extension, or a force at least equal to the other, but made in a contrary direction.

The dislocated limb must often be compared with the sound one, to ascertain whether the head of the bone has been brought to a level with the socket; and when this is the case, or nearly so, the assistants may slightly relax their extension, while the practitioner will freely flex or bend the limb, in the manner as before directed; and the muscles will now replace the bone. The limb may be occasionally rotated while the assistants are making the necessary extension, as a very little change in the position of the bone will often return it to its place. Sometimes it is necessary to elevate it, that it may pass over the brim of the socket.

The reduction of a dislocation is known by the limb recovering its natural length, shape, and direction, and being able to perform certain motions, not possible while the bone was out of its place. The patient experiences a great and sudden diminution of pain, and very often the head of the bone makes a noise or snap at the moment when it turns into the cavity of the joint.

When the bone has been reduced the patient should be placed in bed, if he has not been before; and, after a bandage has been applied, refrigerant and astringent lotions or washes may be applied, such as equal parts of *spirits*, *rain water*, and *vinegar*, to which a little fine salt must be added.

In cases where, before the accident or after, there is great pain, swelling, or inflammation, fomentations must be applied; equal parts of *wormwood* and *hops*, simmered in *vinegar*, and enclosed in a muslin or linen bag, and placed on the parts. I have applied this with decided benefit and success. In one case it so far reduced the swelling and pain, that the patient could scarcely be persuaded that his thigh was dislocated.

Much mischief has been done by attempting to reduce old dislocations; the integuments often become lacerated or torn, and the patient is rendered much worse. No definite time can be given, as this depends upon the history

of the disease, state of the joint, &c. It is not proper to attempt to reduce some dislocations after a month; but some, again, have been reduced even after three months. This point must be determined by the judgment and experience of the practitioner.

One of the family of Sweets attempted to reduce three cases of old dislocations of the hip, which had proceeded from the *white-swelling*. One a female, about fifteen years of age, whom I had attended and cured; but a new socket had formed for the joint, which enabled her to walk about as well as ever, although there was some prominence of the hip, with a little lameness.

The second case was a young woman who had received an injury of the hip during the act of moving from a fire. She had been confined to her bed for a length of time, with excessive swelling and inflammation, which resulted in extensive suppuration. The whole hip, in every direction from the joint, was covered with sinous ulcers, which also affected the bones. After some length of time I succeeded in curing the disease; but an artificial joint had previously formed, with partial *anchylosis* or stiffness.

The third case was that of a boy who had, for two or three years, a white-swelling of the hip, which had likewise thrown the head of the femur or thigh-bone from its cavity. I succeeded in curing the disease, but not in reducing the dislocation, as I never entertained an idea of this nature. But all these patients, or their parents, having heard of the great skill of Dr. Sweet, sent for him, who attempted to reduce them, but without success, as every person the least acquainted with surgery must know. I assisted him to go through the operation with one of the worst of the cases; and such violence did he use, that I was really afraid we should so far injure the female that an indictment would be brought against us for mal-practice, if not for manslaughter. I know not, however, that Dr. Sweet held out much encouragement to any of these patients; but it appeared to me that the very act of attempting to reduce a dislocation of this nature carried the marks of empiricism upon the face of it. I must add at the same time, as before stated, that the principle in itself, properly applied, is good. I cannot think that the elder Sweet ever attempted to reduce old dislocations of this kind. The best principle is liable to abuse.

PARTICULAR DISLOCATIONS.

Dislocation of the Lower Jaw.—Put two corks between the back teeth; then raise the chin, which immediately reduces it.

Dislocation of the Hip.—The bone of the thigh may be dislocated four different ways: 1. Downward. In this case the leg is lengthened an inch and a half, the knees forcibly separated from each other, and the foot turned outward

Mode of Reduction.—The patient is to be laid upon his opposite side, the knee bent so as to form a right angle with the body. The right hand of the operator should be placed on the outside of the knee, his left hand on the inside of the thigh, as high as possible. The thigh should be made a lever, the right hand a power, the left used as an opposing power. The left hand should raise the head of the bone from its new bed, and the right carry it opposite to its socket. Should there be any difficulty of reducing this dislocation in this manner, let it be done by *extension* and *counter-extension*. A sheet, folded longitudinally, is first to be placed over the groin or under the perinæum; one end must be carried behind the patient, the other before, and then either held by assistants, or fastened to one of the legs or posts of the bed. Thus the

FIG. 6.

Dislocation of the Femur or Thigh-bone on the Ilium.



DIAGNOSIS OR SYMPTOMS.

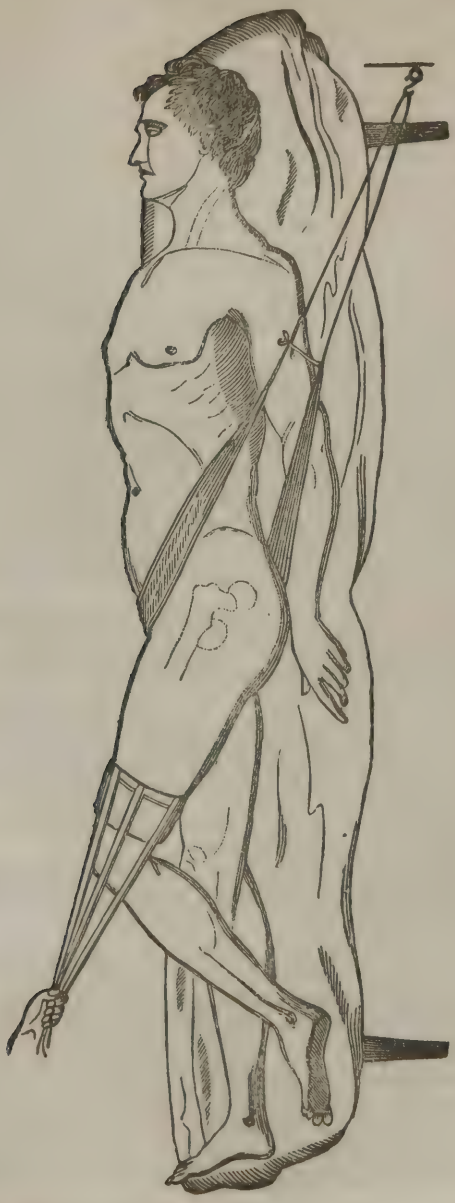
1*st*. *The limb is one, two, or two and a half inches shorter than the other.*

2*d*. *The toe rests upon the tarsus of the other foot, the knee and foot being turned inward.*

3*d*. *The dislocated leg is nearly locked, admitting of but very little motion, but may be flexed or bent, and brought across the other.*

4*th*. *The head of the thigh-bone may be felt when motion of the limb is made, or when rotated inward, except the swelling be too great. Again, it is less prominent than the other.*

Fig. 7.



Reduction of the Thigh-bone when dislocated and thrown on the Ilium.

pelvis or the joint will be secured, so as to allow the necessary extension to be made. Great care must be taken, during the extension, to keep the scrotum and testicles in men, or the pudenda in women, from being hurt by the sheet: to prevent this, a little cotton may be placed under. A bandage made of American muslin must now be firmly bound, immediately above the knee or ankle, round the limb, to which two or three bandages must be fastened, in order to make the necessary extension. The practitioner will now take hold of the dislocated leg, while his assistants make slow and gradual extension in the line made by the limb, when it is brought across the other thigh a little above the knee. As soon as the head of the bone has been brought on a level with the socket by the assistants who are making the extension, the practitioner is to carry the leg first a little outward; he will then flex or bend it, and carry it upward on the abdomen, or toward the face; at the same time a person must press hard upon the hip. This will throw the head of the bone into its natural cavity or socket, which is generally accompanied with a snap or jar. The extension should always be made in a gradual and unremitting manner; at first gently, but afterward more strongly; never violently.

The disappearance of all the symptoms, and the noise made by the head of the bone when it slips into the acetabulum, denote that the reduction is effected. This noise, however, is not always made when pulleys are used. The bone is afterward to be kept from slipping out again, by tying the patient's thighs together, with a bandage placed a little above the knees. The patient should be kept in bed at least three weeks, live low, and rub the joint with the *green oil* or *liniment*. A *strengthening plaster* should also be applied over the hip. Due time must be given for the lacerated ligaments to unite and the sprained parts to recover. Premature exercise may bring on irremediable disease in the joint.

In general, sufficient force can be made without applying any bandages upon the dislocated limb, either above the knee or the ankle. One or two persons, by taking hold of the inferior extremity of the limb, can make force or extension quite sufficient.

I would not be understood to suppose that force alone is sufficient for the reduction of dislocations: skill and address will often succeed better than force. A dislocation of the thigh has been set by one man, after all the force that could be exerted by six had proved ineffectual.

The parts injured by dislocations require rest; afterward easy motion, to enable them to regain their wonted vigour.

The other three kinds of dislocations distinguished by surgeons require the same treatment; with little variation, a description would only tend to confuse the common reader.

Dislocation of the Shoulder.—A dislocation of the upper bone of the arm, more frequently downward, into the axilla or arm-pit; sometimes upward. From the nature of the articulation, as well as from its exposed position upon the body, this bone is more subject to dislocation than any bone in the body. A dislocation of this bone may be known by a depression or cavity on the top of the shoulder, and an inability to move the arm; when the dislocation is downward or forward the arm is elongated, and a ball or lump is perceived under the arm-pit; but when it is backward there appears a protuberance behind the shoulder, and the arm is thrown forward toward the breast.

The usual method of reducing dislocations of the shoulder is, to seat the

patient on a low stool, and cause an assistant to hold his body so that it may not give way to the extension, while another lays hold of the arm a little above the elbow, and gradually extends it. The operator then puts a napkin under the patient's arm, and causes it to be tied round his own neck; by this, during the extension, he lifts up the bone into its place; or a towel, doubled or folded several times, should be placed under the arm-pit on a thick linen or muslin compress, the two ends of which ascend obliquely before and behind the chest, and meet each other at the sound or opposite shoulder, and are held there by an assistant, in order to secure the trunk or shoulder, and make the necessary counter-extension. The practitioner will now take hold of the arm, and gradually extend it in the direction in which it has been dislocated: with the right hand seize the elbow of the dislocated arm, keep it bent, and gently move it from the body; with the left hand crowd a large ball of yarn as far under the arm-pit as possible; then use the arm as a lever, the ball acting as a fulcrum, over which the head of the bone is guided into its socket.

A farmer set the dislocated bones of his neighbours in a country village much more ingeniously than most surgeons. He employed precisely the same process as that just mentioned; all which he did without assistance, and gratuitously. This dislocation is very easily reduced.

Dislocation of the Elbow.—A dislocation of this joint may take place in any direction. A protuberance may be felt on that side of the arm toward which the bone is pushed, from which, and the patient's inability to move the joint, a dislocation is easily known.

Treatment.—Extension is to be made upward and downward by two assistants, while the operator guides the protruded bone into its cavity. All this time the arm should be half bent, that the joint may be as much relaxed as possible.

Dislocation of the Wrist and Fingers.—Dislocations of the wrist and fingers are to be reduced by simple extension, and guiding the bones to their proper places.

It is only necessary to look at injured parts, to learn the method of relief required; yet, strange as it may seem, bystanders will remain idle spectators, when a little resolution exerted on their part would instantly put all things right.

Dislocation of the Knees, Ankles, and Toes.—Dislocations of these joints are relieved much the same way as the joints of the arm, viz., by extension in opposite directions, while the operator replaces the bones. In many cases extension alone is sufficient, and the limb will slip into its place merely by exerting sufficient force.

Dislocation of the Knee-pan or Patella.—The patella may be luxated outward, or even inward, when violently pushed in this direction. It is also liable to a displacement upward.

Reduction.—Let the inferior extremity of the leg on which the knee-pan is dislocated, rest on the practitioner's lap, in order to flex the extensors of the leg; when the patella or knee-pan must be pushed upward, or to its original situation. When reduced, let a bandage be placed round it. I lately reduced a very bad case of this kind in the above manner, when other means were found unavailing.

In concluding this chapter on dislocations I have to remark, that the practice recommended of bleeding, with the use of antimony, &c., is very objectionable; there is no necessity in any case whatever for either, where the operation is properly conducted. Any dislocation can be reduced without resorting to them, or to inconvenient and complex pulleys. Without keeping in mind the nice distinction made in the different species or variety, any person can, with a little experience and judgment, effect a reduction without the least difficulty. The practical rules are the same in every accident. The practitioner has only to keep in mind the general principles of reducing dislocations, viz., by moderate extension and counter-extension, with flexion, rotation, and abduction, and he will invariably succeed, where no insuperable obstacles present.

I am satisfied that our method of treating dislocations, as well as fractures, is better than the old, for the cases we have had have recovered soon, without any deformity. The whole secret consists in placing and securing the bones in contact, and moderating excessive inflammation.

Drs. Chevers and Hibbard, of our Reformed School of Medicine, have reduced a case of dislocation of the thigh by extension and counter-extension. Dr. Shanklin informs me that he has very easily reduced a case of disiocation of the femur upon the "*Sweet* principle," as laid down in this work. (See fig. 5, p. 503.) He says it was done by himself with great facility.

CHAPTER VII.

ULCERS.

An ulcer is an injury done to the flesh from various causes, and from which issues matter, with more or less pain and inflammation. It may arise from any source that occasions inflammation or corrupts the fluids; as fever, scrofula, the venereal disease, retention of acrid humours, cold, injuries, &c. It is divided into many different kinds; but this is unnecessary for practical purposes.

Treatment.—When there is inflammation, pursue the same course to reduce it as laid down under that head: afterward wash it well with castile soap and rain water, to which a little spirits may be added; then apply a little lint, wet occasionally with salt and water, and over it the *black salve*, alternately with the *yellow salve;* over this a bandage may be applied. The dressing, as a general rule, may be repeated twice a day. If it does not heal readily, or if there is unhealthy flesh, sprinkle the ulcer with pulverized *blood-root*; *mandrake* may be combined with it. If this is not sufficient to remove the fungous flesh, apply a little of the *vegetable caustic* finely pulverised. If there are any orifices or openings, dissolve a teaspoonful of the *vegetable caustic* in a gill of rain water, and inject it into them every time the ulcer is dressed. The strength may be increased as the person can bear it, and tents made of twine and passed through beeswax, to stiffen them, may be introduced to keep the orifices open. Poultices, injections, and decoctions of the *black* or *pussy willow*, *oak bark*, *sumach bark*, are all very good, and may be used alternately; in case the ulcer proves unusually obstinate, apply the cancer plaster, with very little, if any, of the *white vitriol* mixed with it.

Internal treatment.—A portion of physic may be occasionally taken; also the *alterative* and *scrofulous syrups*, and other vegetables calculated to purify the blood. I have lately used the following with good effect: Take *hydriodate of potash*, one ounce; add it to one quart of rain water: take half a wine glassful three times a day. Diet to be milk and vegetables. A tea of the American or foreign *sarsaparilla* may also be used. (*Scrofulous, venereal, and cancerous* ulcers will be treated under their respective heads.) Several cases of obstinate sores have been cured by salt and best French brandy applied on linen folded several times, and the ulcers kept constantly wet with it. This may be tried when other means fail. I have occasionally applied cups round the sore and on the leg.

In some ulcers, which have baffled the skill of all physicians, I have found the application of an ointment made of the following plants prove a sovereign remedy: Take sweet clover tops and stalks, burdock leaves, and parsley, a handful of each; boil in water till you get the strength; strain, and add one pound of resin and a quarter of a pound of fresh butter; simmer until of a proper consistence. This recipe cost fifty dollars.

Sidney Bowne states that he has had great success in treating ulcers in the following manner: Bathe the parts or limb in ley water daily, half an hour each time; then apply a bandage, and keep it wet with cold water. He says that it cures all cases.

Fungous flesh, Cancer, &c.—The pulverized blood-root is a good *escharotic*. I lately removed a fleshy excrescence of the eye by applying a little to it daily, by means of soft muslin moistened with water. Dr. Stewart uses it as follows: Extract the clear juice of *blood-root* by pounding and pressing; then reduce it to the consistence of salve, either in the sun or by the heat of embers. Says he, "This simple salve will kill the fungous part of a sore cancer faster than any medicine I know of; and the patient may sleep the meanwhile." He also combines it with the *red precipitate*.

CHAPTER VIII.

NECROSIS OR DECAYED BONE.

The bone sometimes becomes rotten from inflammation or other causes, mercury, &c. When the bone is diseased the ulcer over it shoots out fleshy excrescences, and the edges are either everted or turned out.

Treatment.—This disease is usually quite protracted. The treatment must be the same as for ulcers, and attempts made as soon as practicable, or any bone appears, to use means to aid its exfoliation or expulsion, which may be done by a pair of forceps. I have removed a greater part of the tibia or shin-bone, and the lower jaw, in this manner. Some cut down to the bone, and extract the diseased portions; but I consider this generally bad practice. Aiding nature, with patience, is preferable.

By the above treatment I have cured many with the worst kind of ulcers, after many years' standing. Mr. Van Name, of Staten Island, had an ulcer in the leg, with necrosis of the bone so bad that he had been attended by seven or eight physicians. By degrees I removed a considerable portion of the tibia, and he recovered. Mr. Milwood, of Brooklyn, had a shocking ulcerated leg; it had thirty-eight ulcers on it. He was attended in this

country, Ireland, and in London, without benefit. Under the preceding treatment he recovered, and has been well for many years since. On his arrival at London he went to one of the members of the college of physicians and surgeons, showed his leg, and obtained his certificate of the cure, in which he states that the treatment reflected great credit on the surgeon who performed the cure.

CHAPTER IX.

CANCER AND SCIRRHUS. (*Carcinoma.*)

CHARACTER.—A hard tumour or scirrhus is considered as the occult or primary stage of cancer, and is not an unfrequent consequence of inflammation, when it has attacked or occupied glands. The part becomes of increased size, is knotty, hard, and irregular to the touch—being, however, unattended with any discolouration of the skin—and acute pains are every now and then felt darting through the tumour. At length a tendency to cancerous ulceration becomes obvious.

A cancer is an ulcer of the very worst kind, with an uneven surface, and ragged and painful edges, which spreads in a very rapid manner, discharges a thin, acrimonious matter, that excoriates the neighbouring integuments, and usually has a very fetid smell, and which is generally preceded by a hard or scirrhous swelling of the part, if glandular. The disease is most commonly confined to glands, and particularly the breasts, now and then to be met with in the uterus, the face, and other parts, such as the lower lip, the angles of the eyes, the organs of vision, the tongue, &c.

Cancer is most generally met with in persons advanced in life, and particularly in women about the period when the menses cease.

The cancerous sore is extremely irregular; on its surface are seen various prominences and excavations, from one or more of which a hæmorrhage is frequently observed to proceed. It is attended with a peculiarly burning and lancinating pain, which is generally intermittent. The edges are thick, indurated, and often exquisitely painful; they are sometimes retorted, most generally inverted. The odour of the discharge is frequently so intolerably offensive that it is difficult to inhale it long, and of a very excoriating or scalding nature.

There is a species of cancer called *noli me tangere*, which means, *touch me not*. It appears on the surface, generally the face, and is very small and slow in its progress; and rough, scaly, and itchy. It will continue for a great many years without much injury, or perhaps danger. Cancers of the female breast proceed to a more speedy termination, particularly when they have submitted to empirical treatment by the knife: there are few exceptions.

Dr. Allen, of Middlebury, Vt., states that a lady, about one hundred years of age, died from another cause, who had an open cancer of the breast for more than thirty years. Several other cases of a similar character, though less protracted, have occurred.

Cancer is one of the most distressing diseases to which poor mortals are subjected. The unhappy sufferer is literally destroyed by a slow, but virulent, poison, with which the fluids are contaminated, and which is the immediate cause of cancer; while the remote causes may be blows, cold, &c.

Treatment.—Various applications are recommended and used for cancer; although the knife is generally employed as a remedy, yet I have never seen a solitary instance cured by it; the very nature of the disease, its extensive ramifications, the structure of the parts diseased, show conclusively that the act of cutting out a portion of the diseased mass is of no service; but, on the contrary, in almost every case exasperates it. I have seen a cancer grow more in one month after an operation, than it did in three previously; and it appears to arise partly from the nature of an incised wound, that soon heals and retains the cancerous matter, which proves an additional source of irritation, and partly from irritation, inflammation, and other causes; or the injury done to the absorbents.

I have had a great share of practice in this disease, both before and after an operation has been performed, and, therefore, have had an opportunity of knowing the effects of the common practice, particularly of the knife; and I must give my testimony against the use of it in any case whatever, for I am satisfied that it only aggravates the disease. I am astonished that surgeons will continue to operate for cancers, when they *must positively know, by their own experience, that, instead of removing, it exasperates* the disease and accelerates its growth.

I have been called in every direction to see persons labouring under cancer, for which exci[illegible] and I have invariably found that every one of the pa[illegible]

Could the k[illegible]

glandular syst[illegible] on [illegible]aving the whole [illegible] ecting a cure But how c[illegible], in gre[illegible] or less deg[illegible] *rance*, to s[illegible] ease? We hav[illegible] tion[illegible] ed; and, if so, with what [illegible] success can su[illegible] and unnatural means be relied upon or resorted to?

Sir Astley Cooper, and many other experienced men, both of the past and present time, consider cancer as decidedly a complaint connected with a peculiar state of the constitution. When an operation is performed, little cancerous bands, resembling ligaments, shoot into the surrounding adipose substance, and even the fibres of the muscles beneath the cancerous disease are frequently affected.

I know that many tumours have been extirpated which have borne the name of cancer, but I am well satisfied that they were fleshy or sarcomatous.

As Mr. B. Bell remarks, the great authority of Dr. Alexander Monro must have no inconsiderable influence, even with practitioners, in making them much more backward in undertaking the extirpation of cancers than they otherwise would have been. "Of near sixty cancers," says he, "which I have been present at the extirpation of, only four patients remained free of the disease at the end of two years; three of these lucky people had occult cancers in the breast, and the fourth had an ulcerated cancer of the lip." (*Edin. Med. Essays*, vol. v.) Dr. Monro also observes that, in those in whom he saw the disease relapse, it was always more violent, and made a quicker progress, than it commonly did in others on whom no operation had been performed.

Treatment of Cancer in a state of Scirrhus, or before it ulcerates.—When any gland has become enlarged, indurated, and shows a tendency to be scirrhous, we should, from the earliest period, use our utmost

exertions to discuss, or at least to prevent, its farther increase. Applications of a *discutient* and sedative nature should be had recourse to without delay; pressure of any kind should be guarded against, particularly from lacing; the bowels must be kept free and open by purgatives administered from time to time, and a cooling regimen be enjoined, cautioning the patient to abstain from all spirituous liquors, and from other stimulants of every kind.

When the disease is in a state of tumour or scirrhus, let the following discutient ointment be applied: Take of bark of the root of bitter-sweet (*solanum dulcamara*,) stramonium leaves, (*datura stramonium*,) cicuta leaves (*conium maculatum*,) deadly night-shade, (*atropa belladonna*,) yellow dock-root, (*rumex crispus*,) pokeberry or root, equal parts: bruise the articles, cover with spirits, and simmer a few hours; then add *fresh butter* sufficient, when melted, to cover the whole; simmer moderately over embers until the strength is extracted; then strain and cover in an earthen jar. Let the tumour be well bathed with this ointment three or four times a day before the fire, or any heated substance may be held a little distance from the part during the act of bathing. After the tumour has been anointed, let a plaster be applied. Inspirated juice of pokeberry is good; also cicuta and extract of henbane.

Every other night, on going to bed, if there is any pain in the tumour, steam with the following: *boneset*, *wormwood*, *hoarhound*, and *hops*; boil two parts of *vinegar* and *water*; throw the [illegible] add a small [illegible] hour or parts [illegible] the applica- [illegible] no perspira- [illegible], the articles may be put into a large bowl, an [illegible] When the axilla and arm are swelled, let the [illegible] parts also.

If the patient should be in the most excruciating pain, this treatment will mitigate it, by eliminating the cancerous humours, removing the tension, swelling, and inflammation connected with it, and rendering the parts more soft and natural. During the use of these medicines the patient may take the scrofulous syrup. Also give, in connexion with this syrup, a pill made of the extract of cicuta, containing a grain or two, twice a day; and, if no nausea follows its use, to be gradually increased. The following may be tried: Take *yellow dock-root*, one ounce; common salt, one ounce; add one pint of best French brandy; keep the parts wet with it, instead of the plaster. This is very discutient. A purgative should be given once or twice a week; the powdered root of mandrake is preferable.

I wish to impress on the mind of the person afflicted with a cancer of the breast, the importance and necessity of avoiding the use of the *knife* and any *corrosive plaster*, especially before it ulcerates, as both are sure to exasperate the complaint, which otherwise, if treated mildly, or even left to nature, might progress very slowly: the knife and the plaster I have found, by extensive experience and observation, to exasperate the disease, and hasten it on to a speedy and fatal termination, to say nothing of the sufferings which they must occasion. *If you do it, remember, it is at your peril:* the opinion of quacks to the contrary, notwithstanding.

I have thus given the treatment for cancer in its scirrhous state, and it has removed some very obstinate cases; but it sometimes, in spite of the best-known treatment, puts on a very malignant character, and inflammation will take place. when this occurs the same remedies may be applied, except the plaster; instead of which the following poultice must be substituted, with

a view to moderate inflammation and favour suppuration : Take *cicuta leaves*, and simmer them in rain water until they are soft ; then stir in *slippery elm bark* to form a poultice, to be applied, tepid, morning and night, as long as there is inflammation or ulceration ; and even after an abscess is formed, or the tumour discharges, the poultice may be continued, at least a part of the time, in order to reduce the swelling and promote a discharge.

After this has taken place, when the inflammatory symptoms have been measurably subdued, and the disease assumes a chronic character, a course somewhat different must be pursued. It will be necessary to use the poultice occasionally, to lessen heat and irritation, as in almost all cases of cancer there are more or less of these symptoms present ; but in general we must rely more upon stimulating applications, with a view to aid the powers of nature to throw off the disease : to effect this she establishes a discharge, and it is our business to promote it, if the strength of the system will admit. Many are in the habit of accomplishing this by applying various kinds of *cancer plasters*, such as *arsenic*, *&c. ;* and almost always under pretence that they are *vegetable*. There was an agent in this city, of Dr. Davidson, who became very popular for the cure of cancers, and, as he says, by simple and vegetable means ; but it is, I believe, a well-established fact, that the basis of his plaster is *arsenic ;* and if it has cured some, it has killed others. I have, however, more confidence in almost any of the preparations used for extracting cancers, than I have in any operation by the knife. The latter is exceedingly painful, uncertain, and dangerous ; while the former, even though it be very severe, will sometimes, by its corrosive or escharotic effects, cure the disease : but much depends upon the nature of the application or plaster made use of, as there is a very great difference in the effect of different agents employed. I have tried, and seen tried, almost everything that has been highly extolled, or that has gained much celebrity for the cure of cancer ; and I feel, therefore, prepared to make such a discrimination, and to give such directions, as may be relied on and entitled to confidence. Any preparation of arsenic, blue vitriol, &c., I consider to be injurious.

The attention of practitioners has long been directed to the vegetable kingdom for an antidote to this formidable disease ; but, unhappily, none has, as yet, been discovered, the properties of which are sufficiently active invariably, or even generally, to cure it, especially when it has become confirmed, or in the latter stages ; nor have our researches into the mineral kingdom been successful. It is true, cancers may be cured in their incipient or forming stages, and oftentimes when they are considerably advanced or progressed. I have successfully eradicated them in numerous cases, where the disease had not proceeded too far.

Of the different vegetable productions, I have found the *vegetable caustic*, *ley*, made by leaching hickory ashes, and boiling to an extract or plaster, the most active and salutary where cancer is in a state of ulceration : Take any quantity of hickory *ashes* and leach them ; boil the *ley* until it is of the consistence of molasses or honey ; spread a small quantity upon a piece of leather, and apply to the part affected. Let it remain until the pain produced by it subsides, or as long as the strength of the patient will admit ; after which apply a poultice daily. The plaster or *extract* must be kept from the air, or its virtues or active properties will be destroyed. The effect of this preparation is, to excite a preternatural discharge, or cause a sloughing of the ulcer, and thus remove or diminish it : it has a peculiar operation, different from any known substance ; that while it proves very active, and somewhat corrosive, instead of creating inflammation, like other kinds of caustic, it

absolutely diminishes it. Hence it becomes a valuable agent in this as well as in many other complaints. In general a *poultice* may be applied at night, and our *black salve* or *plaster* during the day, using, after every dressing, lint on which is spread a little emollient ointment, such as the *celandine* or discutient. This treatment has removed many cancerous ulcers which were supposed to be incurable.

Should the disease, however, resist these applications and remain stationary, or continue to progress, let a plaster be applied, made as follows: Take *white oak bark*, clear of the exterior portion, half a bushel, and bruise; cover the same with soft water, or, which is much better, urine; let it stand in a warm place two or three days, to digest properly; then boil, pour off the liquid, add more of the urine, and boil again, and thus repeat till all the strength is extracted; slowly simmer down till it becomes of the consistence of molasses; then take *white turpentine*, the gum, four ounces, and inspissated juice of pokeberry, four ounces; melt and strain it, and add to the extract, and also half a pint of strained *honey;* boil a few minutes, to incorporate, and remove it from the fire: to every ounce of this extract add from half a drachm to a drachm of pulverized *white vitriol;* let it be spread on a soft piece of leather, and applied to the cancer. It may be renewed every day or two, according to circumstances. This forms about the best cancer plaster, taking all circumstances into consideration, of any article with which I am acquainted. The tumour almost invariably becomes diminished and soft under it; the indurated or hardended edges gradually diminish; the size of the sore lessens; and, in very many instances, used with the other means recommended, will effect a radical cure; and even where it does not, it never fails to arrest the progress of the disease, to lessen the pain, swelling, and inflammation, and in every respect to improve the condition of the patient. It changes both the quality and quantity of the discharge, and renders the patient comfortable.

If the patient complains of great pain under the influence of this or any other application, a *narcotic* may be administered. I have used a plaster made of the *cicuta leaves* with advantage; and it may be tried when others fail.

When a cancer is very fetid, a yeast poultice may be applied; also a solution of *chloride of lime*. In cancers of the womb this may be injected. *Hydriodate of potash* is highly recommended; it may be taken internally, and applied externally in the form of ointment.

Cornelius C. Cuyler, pastor of the Reformed Dutch church, in Poughkeepsie, has communicated the following preparation for the cure of cancer; he details several cases which have been removed by it: Take the narrow-leaved dock-root, boil it in soft water, wash the ulcer with a strong decoction of it, warm as it can be borne; fill the cavity with the liquor for two minutes; then scrape the hulk of the root, bruise it fine, put it on gauze, and lay it over every part of the ulcer; dip a linen cloth in the decoction, and put that over the gauze; repeat this three times in twenty-four hours; and at each time let the patient take a wine glassful of the tea made of the root, with one-third of a glass of port wine, sweetened with honey.

A person states that the juice of poke leaves cured a very inveterate cancer which was applied merely to prevent the annoyance of flies.

CHAPTER X.

INFLAMMATION IN THE BREAST, AGUE IN THE BREAST, MAMMARY ABSCESS, &c. (*Mastodynia.*)

The breasts of women are occasionally the seat of very painful and distressing swellings and abscesses.

The inflammation commences in the usual manner, and the pain, hardness, and swelling are, in general, very considerable.

The progress of this complaint varies; sometimes it is rapid, and causes great distress. It arises from cold or other causes, which obstruct the flow of milk.

Treatment.—The treatment is similar to other kinds of inflammation and abscess. When there is simply an ague or swelling in the breast, the object should be to discuss it, which may be done by applying the *bitter-sweet ointment*, and the *adhesive* and *strengthening plaster* or the *common strengthening plaster*, and remove the chill by perspiration. The breast may be bathed with *soap liniment*. Also take one tea-spoonful of Jamaica rum, ground pepper and ginger, one tea-spoonful of each: boil about five minutes, and thicken with rye flour, (elm bark, I suppose, would be better;) put a little oil on the breast, then apply the poultice, and repeat three times; it generally cures. It has cured a number of persons; one Hannah Burling three times.

This course will, in general, remove the swelling and hardness; but when this cannot be accomplished, *poultices* must be applied, the same as in other inflammations. The *ley* thickened with the *elm bark* is very valuable. When matter has evidently formed, and there is a disposition to discharge it, and the pain is very great, it may be punctured with a lancet, or, which is better, if the patient can wait, let it break spontaneously, as recovery is more speedy and the cure permanent. I have sometimes aided the exit of the matter by slowly and carefully working a probe down, with a spiral motion, on the most prominent and soft part, where generally a small tumour is formed; to be repeated several times. A little caustic may be applied. When open, still continue the poultice till all the inflammation has subsided; then apply the *black salve*. I treated one case of long standing, in which the whole breast was indurated, and in a state of abscess, with numerous openings, through which milk and matter issued. One surgeon recommended amputation of the breast. It healed, and has remained well for about twenty years.

By this method I have cured the most desperate and loathsome diseases of this kind which are on record, when the whole breast has been, as it were, a mass of corruption, numerous sinuses pouring out matter and milk, the glands so indurated that they have been apparently in a state of scirrhus or cancer, and when other physicians have treated them without the least benefit. Nor has the practice failed in a single instance: it is attended uniformly and invariably with the same success.

Sometimes the pain is so great that it is necessary to give anodynes Attention must be paid to the general health.

CHAPTER XI.

ST. ANTHONY'S FIRE. (*Erysipelas.*)

In this disease there is generally constitutional disturbance, more or less fever, and the secretions disordered. There is a shining redness and swelling of the parts affected, accompanied with very distressing irritation; the inflamed parts being hot and painful, stinging, itching, smarting, and burning sensation, with acute pain on pressure. Frequently serous or watery effusion takes place from the inflamed surface, elevating the skin into smaller or larger vesicles, like those produced by blisters; or raising it by a soft, yellow, jelly-like deposite, which remains slightly adherent to both the cutis and cuticle. The contents of the vesicles are transparent, sometimes nearly colourless, but more commonly yellowish; sometimes they consist of a thin pus or matter, or they may exhibit a bloody or livid discolouration. The fluid loses its clearness, becoming thicker, opaque, and whitish or yellowish. The cuticle gives way; the fluid escapes, and incrustations form, which soon fall off, leaving the skin sound; or they may lead to superficial ulcerations. Erysipelas sometimes produces gangrene, but this is of comparatively rare occurrence. Ulceration sometimes follows, and becomes very tedious and distressing; red, deep-seated ulcers being formed, particularly on the legs. It appears in various parts of the body, more especially the ears, eyes, face, and extremities, and attacks persons of gross habits. It proceeds from morbid or acrid secretions retained in the system.

I attended one lady who had the complaint in her eyes, which made her blind, and the lids ulcerated; but she entirely recovered.

The following singular occurrence shows that erysipelas proceeds from a specific poison: "At Worcester, Massachusetts, on the twenty-eighth day of May, 1842, Mr. Samuel Harrington, aged fifty years, an undertaker, and his wife Nancy, both died of erysipelas, contracted by Mr. H. from a corpse which he assisted in laying out on the twenty-third of April. A daughter very narrowly escaped death from the same cause. While adjusting the head of the corpse in the coffin he got erysipelas matter from the deceased person into a slight cut in the ball of one of his thumbs, made with a glass a few days previous. Shortly after he experienced a sensation of heat and smarting in the thumb, and very soon erysipelas distinctly manifested itself about the cut, and, extending through his entire arm, proved fatal. His wife and daughter both contracted the disease while attending him."

Treatment.—From the derangement of the digestive organs, it is obvious that purgatives should be given. *Senna*, *manna*, and *cream of tartar*, with a little *fennel seed*, to prevent griping, answer a good purpose. A dose of this should be given every other day, or twice a week, according to circumstances. During the day the patient may take a strong decoction of *elder flowers;* they are laxative, cooling, and alterative. These medicines, by their *depletive* and *refrigerant* operation, diminish the inflammatory symptoms.

I have found that the *vapour bath* is attended with a very excellent effect in this complaint. One single bath will sometimes remove all the heat, swelling, itching, &c. I think it is better when so contrived that the head, as well as other parts of the body, be exposed to the heat or steam of the herbs. The good effects, I suppose, depend simply upon the discharge from

the skin, or the perspiration produced. The acrid humours, which appear to be the exciting cause of the complaint, are expelled from the system by restoring this secretion. If it be inconvenient to use that kind of vapour bath which admits the application of steam to the head, the common domestic vapour bath may be substituted. *Sudorific medicines*, then, are indispensably necessary in the treatment of St. Anthony's fire, or erysipelas: external or local applications are also very valuable in every species or stage of this disease. The inflamed parts may be often anointed with the *brown ointment*. Some have an idea that any preparations of oil are injurious; but this idea is not correct, as I have proved by ample experience. The opinion has been formed, no doubt, in consequence of uniting with greasy or oily substances acrid or stimulating agents. The parts should be frequently washed with the following liquid or tincture: Take of the *leaves of garden celandine*, one ounce; *Irish whiskey*, or, as a substitute, common *whiskey* or *spirits*, one pint; add the leaves, and after it has stood a few hours it is fit for use. Let this be applied three or four times in the course of the day, or when there is much itching. When the extremities are the seat of erysipelas, and when the swelling and inflammation are very great, the following will be found a good application: Take *borax*, one drachm; *sugar or acetate of lead*, half a drachm; *rain* or *soft water*, one porter bottleful; pulverize the articles, and add them to the water. Let linen cloths be dipped in this mixture, and kept upon the parts affected. But of all the articles or preparations which I have ever used for erysipelas, in any stage of it, I have found a poultice made of the *slippery elm bark* to be the most decidedly beneficial. Indeed, in this, as well as in every other inflammatory affection, it proves a sovereign remedy. If the patient is in even the greatest distress, he experiences relief as soon as it is applied. The superfine flour of the bark should be mixed with pure milk; and, what is sometimes preferable, buttermilk or fresh cream, when it can be procured.

If this disease terminates in ulceration, or gangrenous blisters appear, a little of good brewer's *yeast* must be added to the same poultice. Where there is an ichorous discharge, apply a little of the *elm bark, powdered*, to absorb it. Some are in the habit of using burnt rye meal in this disease, which, no doubt, is in some degree serviceable. A continuance in these means will, in a short time, arrest the disease, and soon remove it. Nothing stimulating or heating must be given to the patient. A cooling diet should be recommended, consisting principally of milk, vegetables, and ripe fruit.

I have applied best *Irish whiskey*, or, as a substitute, best *Jamaica spirits*, to the parts with the most signal benefit; it affords immediate relief, and may be used whenever there is much heat and irritation. I recollect one case on the face, which it apparently cured when all other means failed. Free purging and a low vegetable diet are very important. In some cases I have found the *black* or *pussy willow bark*, pulverized, and mixed with cream or milk, superior to the elm bark: the last case I attended improved rapidly under it. The root beer recommended in this work is also very good, and aided much in curing one bad case.

Henry states, in his Herbal, that *beech drops* are very beneficial in St. Anthony's fire and canker in the throat. In four quarts of water put eight ounces of *beech drops;* boil it down to two quarts; strain the decoction, and sweeten with loaf sugar. After proper evacuations the patient may take a tea-cupful four times a day, and keep linen rags, wet with the decoction before it is sweetened, over the inflamed parts until it is well.

A physician states that he cured a case of St. Anthony's fire by the application of elder ointment.

I lately successfully treated an extraordinary, painful, and obstinate case of erysipelatous inflammation in one of the lower extremities, in which the patient's life was considered almost hopeless; great swelling and pain, which occurred in paroxysms, brought on by a slight change of position; he was obliged to sit in a chair for five or six months, day and night; and had received the advice and consultation of Stevens, Rogers, and Bowron, of this city, without the least benefit. Steaming, fomenting, poulticing, and all our common remedies, for about two months, made but very little improvement; every watery application aggravated it: I then commenced the use of the pulverized black willow bark, commonly called pussy willow; it was mixed with cream, and applied three times a day, under which it grew better; it sloughed in several places nearly to the bone; after most of the pain had subsided, I applied the slippery elm bark and milk, and subsequently the black salve, which effected a cure in about five months, to the disappointment and gratification of the patient and all his friends. The name of the patient was Mr. Timothy Youle, of the Mechanics and Traders' Bank of this city.

I have attended another case, of a girl, attacked with inflammation in the hips and whole system; her pulse was 130 in a minute; the pain very great; the muscles so contracted that she was distorted in a most horrible manner, and rendered perfectly helpless; and it was thought that she could not survive from one day to the other. It had arisen, it was supposed, in consequence of having taken mercury; sloughing took place on each hip, from the bone. Under our common treatment she slowly recovered, and in four or five months was able to sit up; she is now well, and can walk with a cane, although the pelvis is thrown in a very unnatural position, and must ever remain so. Her general health, however, is excellent, and I think she will yet be able to walk without crutches, although so much deformed.

Since writing the above I have seen the patient, and she is able to walk without crutches; and will be less deformed than I anticipated.

CHAPTER. XII.

LOCKED-JAW.

Sometimes this disease arises without any previous injury, more especially in warm climates, and near the sea. Robust, vigorous, middle-aged men are more liable than others.

In the majority of cases locked-jaw comes in consequence of stabs and punctures in tendinous parts, and about the fingers and toes; and this frequently when the wound heals kindly.

Symptoms.—The muscles of the lower jaw become contracted and hard, at length the patient cannot open the mouth at all. A difficulty of swallowing succeeds, resembling hydrophobia. The muscles of the neck and back, and, indeed, of the whole body, become successively affected with violent spasms. The symptoms are sometimes rapid, at others slow in their progress

If the patient survives the fourth day, there is a chance of his recovery. The symptoms never recede but by slow degrees.

Treatment.—There is no disease which is treated with such a variety of medicines as the locked-jaw. There are as many different applications as there are physicians, none of which seem to have much effect.

When the tetanus proceeds from a wound, as is frequently the case, the attention should be chiefly directed to such wound. It will be usually found that an unhealthy or ill-conditioned state of it is the exciting cause of the disease. There is either no discharge, or it consists in an unhealthy or a sanious matter: hence the importance of applying such agents as will bring about a healthy state of it. If the situation will admit, the parts should be fomented or steamed over *bitter herbs*, after which they must be bathed or held in hot ley three times a day, one hour each time. A captain of a vessel, in one of the eastern states, was cured of a severe attack of the locked-jaw by bathing the part in ley as hot as could be borne.

When it has been thus bathed let a poultice be applied, made of *slippery elm bark* stirred in the ley, and applied warm; and let it be often thus steamed and poulticed. To the wound itself let the vegetable caustic be applied whenever it is dressed; as a substitute, the carbonate of potash may be used; it is not, however, so powerful.

When the muscles become stiff, rigid, and contracted, let the patient be thoroughly sweated by means of the *vapour bath*, made by putting a strong decoction of bitter herbs into a small tub, and placing the patient over, with a blanket around him to retain the steam. At the same time let him drink a tea or infusion of catnip. After this he should be put to bed, and covered warm, in order to keep up a perspiration. If the symptoms of the complaint continue, and if there be spasms, rigidity, affection of the throat and jaws, give the patient a table-spoonful of the tincture of lobelia, diluted with any kind of tea, every twenty minutes until it operates as an emetic. When the jaws have been so closed that no medicine could be introduced, I have known this to cause an immediate relaxation of the muscles, and open them. If the symptoms are very severe, a tea-spoonful of the tincture of capsicum may be added to the tincture of lobelia. If these medicines do not control the disease, or if the patient does not receive essential benefit from their exhibition, administer the *black drop*. When the case is very urgent, a tea-spoonful may be given; but the physician should be governed by the violence of the symptoms; or a pill of opium the size of a pea every four hours till relief is experienced. If called to a case where there is any difficulty of administering any kind of medicine, injections or clysters should be administered, made with a strong decoction of lobelia, mixed with half its quantity of milk, and sweetened with molasses, to which a little sweet oil must be added. To each injection from half an ounce to an ounce of laudanum may be added. It will not be requisite to use this, unless the other means fail.

CHAPTER XIII.

CARBUNCLE. (*Anthrax.*)

Description.—A deeply-seated, hard, immoveable, and distinctly circumscribed tumour, generally appearing in the posterior parts of the body, and most frequently attacking people above the middle age, and luxurious livers. About its centre it is of a dusky red, purple, or livid colour; but is much paler, and often variegated, toward its circumference. There is often an extensive areola of a brownish hue. It is accompanied with an intensely painful sense of burning; small purulent matter or pustules appear, which, when ruptured, evacuate a dark-coloured matter.

It usually commences with a small pimple, which runs deeper and deeper until the base becomes extremely broad. In the beginning it is sometimes accompanied with symptoms of general inflammation, but more commonly with chills, sickness, faintings, succeeded by great prostration of strength, languid pulse, and symptoms of typhus. It not unfrequently degenerates into a sloughing ulcer.

Sometimes a little slough, of a black colour, appears in the middle of the tumour. The progress of carbuncles to the gangrenous state is generally quick. Their size is various; they have been known to be as large as a plate. Considerable local pain and induration always attend the disease. The skin, indeed, has a peculiar feeling, like that of bran. As the complaint advances several apertures generally form in the tumour. Through these openings there is discharged a greenish, bloody, fetid, irritating matter. The internal sloughing is often very extensive, even when no signs of mortification can be outwardly discovered.

Treatment.—The treatment of carbuncle may be commenced by fomenting or steaming the part with bitter herbs, as directed for some other inflammatory complaints. This should be repeated whenever the pain is severe. After this let the following poultice be applied: Take equal parts of pulverized *linseed* and *slippery elm bark;* add a sufficient quantity of rain water, and simmer until the linseed becomes mucilaginous and a poultice of a proper consistence is formed. When it is cool, or about blood-warm, to every half a pint of the mass add a wine glassful of good *yeast*, and let it be well mixed; apply to the carbuncle tepid, and renew it before it becomes dry: this will be found to have a very salutary effect upon the disease, and will lessen the pain, swelling, and inflammation, while at the same time it has a tendency to promote suppuration. After some length of time little orifices will be seen in different parts of the carbuncle, through which a peculiar matter, sometimes resembling water mixed with flour, discharges, and it will often, after a while, be converted into a pulpy or soft substance, which will slough off, and leave a deep opening; the symptoms of it very much resembling mortification. After the inflammatory symptoms have in a considerable degree subsided, although erysipelatous inflammation is the characteristic symptom of this complaint, stimulating applications may be used, such as pulverized *blood-root*. A small quantity of the *vegetable caustic* may be daily sprinkled upon the ulcer, and the poultice continued. But if the disease has subsided in a considerable degree, the black salve may be applied to it, particularly during the day. Every time it is dressed it should be cleansed

with soap, water, and brandy; after which pledgets of lint may be laid in the opening. Carbuncle is attended with much pain, itching, and burning; it will, therefore, be found beneficial to wash it often with cooling lotions and ointments. If the poultice mentioned should in any respect disagree with the patient, which it may possibly do in the first stages of the complaint, it may be omitted, and one made by boiling the bark from the root of *sassafras*, and mixing the elm bark with the decoction, substituted; this makes an excellent poultice for this and other kinds of inflammation. The patient must take such medicines and diet as are calculated to impart tone and energy to the system, as carbuncle appears to be a disease arising from debility: a *purgative* to be occasionally administered, and the patient may take yeast; and, if he is very weak, *porter* and *Madeira wine*, and through the day an infusion of Virginia snake-root, might be used. Should there be any febrile symptoms present, perspiration must be promoted. This course will be found very effectual.

CHAPTER XIV.

SCROFULA OR KING'S EVIL.

Description.—The scrofula was so called, as is supposed, in consequence of swine being subject to this disease; and it is vulgarly called the "King's Evil," from the custom of submitting patients to the *royal touch*.

The disorder consists in hard, indolent tumours of the glands in various parts of the body, particularly in the neck, behind the ears, and under the chin, which, after a time, suppurate and degenerate into ulcers, from which, instead of pus, a white curdled matter, somewhat resembling the coagulum of milk, is generally discharged.

The first appearance of the disease is most usually between the third and seventh years of the child's age; but it may arise at any period between these and the age of puberty, after which it seldom makes its first attack. It most commonly affects children of a lax habit, with a smooth, soft, and fine skin, fair hair, rosy cheeks, and a delicate complexion; but it is occasionally met with in those of a dark one.

The glandular system appears to be almost entirely, if not exclusively, the seat of the disease; and in almost every instance it is located in the conglobate glands of the neck. It was denominated the king's evil in the time of Edward the Confessor, the first who attempted to cure it by the royal touch. From a register kept in the royal chapel, we find that Charles II. touched 92,107 persons in a certain number of years.

Writers, from their representation, make out almost every morbid taint of the system to consist of the scrofula. The hip disease, white swelling, chronic ophthalmia, and every morbid affection of the system, by them is pronounced "scrofulous." The term is entirely too extensive, at any rate, for practical purposes.

A physician of this city was called to a boy who had a white swelling in the knee, and, upon being asked what it was, he said it was a scrofulous affection; on which the mother asked him if he meant the king's evil, when he replied in the affirmative!

It has been supposed by many that the scrofula is hereditary; but we have no evidence of this, as it often appears in families whose predecessors, as

far as they can be traced, have never had a vestige of it. Children born of scrofulous parents are not invariably affected with scrofulous diseases; and sometimes one child has some strumous affection, while the parents and the rest of the family have no appearance of scrofula.

Symptoms.—Among the earliest, the most frequent, and most characteristic symptoms of the disease, are swellings of the absorbent glands, particularly those of the neck. Such tumours sometimes continue for a long time, neither advancing nor receding, unattended by pain or any constitutional disturbance. Sometimes they subside spontaneously, but more frequently suppuration of an imperfect kind gradually takes place in them, followed by open ulceration. The ulcers heal slowly, leaving ragged and purple scars, and are succeeded by other tumours, which run a similar course. In this manner the disease is often kept up for a series of years, until at length the constitution either throws it off, or it appears under some of its more severe and dangerous forms.

The whole gland and cellular substance often becomes extremely ulcerated, and frequently numerous openings, through which matter is discharged.

Scrofulous inflammation, as Burns observes, is marked by a soft swelling of the affected part, which very frequently is one of the lymphatic glands. The covering or coat of the gland becomes slightly thickened, and its substance more porous and doughy. The swelling increases, and the doughy feeling changes by degrees into that of elasticity or fluctuation, and a firm, circumscribed, hardened margin can be felt around the base of the tumour: the skin is slightly red. If at this time an incision or puncture be made, either no matter or very little is evacuated; the lips of the wound inflame and open, displaying a sloughy-looking substance within; and between this and the skin a probe can often be introduced for some distance all around.

Treatment.—There is nothing very definite in the treatment of this disease laid down by physicians. It is considered by them incurable, and very little is done for it. Mercury is given by some, but with a decided injurious effect.

"For the cure of scrofula," says Cullen, "we have not yet learned any practice that is certainly, or even generally, successful."

There are four particular states of this disease, which must be kept in view in treating it:

1st. A state of inflammation.

2d. A state of abscess or ulcer.

3d. A state of tumour or scirrhus.

4th. A state of constitutional affection.

1st. *A State of Inflammation.*—When the disease attacks a person with pain, swelling, and inflammation, the *ley poultice*, and others recommended under the head of inflammation, may be applied. Let them be continued until the swelling subsides, either by or without suppuration; but it is very difficult, if not impossible, to disperse scrofulous swellings, attended with much pain and inflammation. You may apply a poultice made of the *yellow* or *narrow-leaved dock*, by bruising or pulverizing the root, simmering it in milk, and then adding a sufficiency of the elm bark to form a poultice, to be applied the same as the one preceding.

2d. *State of Abscess or Ulcer.*—When the swelling or the abscess breaks, or suppuration takes place, our next object will be to bring the ulcer into a healthy state and heal it. As before stated, these ulcers assume a very indolent and inveterate character, and, therefore, require altogether a different treatment from that usually pursued to cure them. We must be governed

in our applications, in some degree, by the state of the ulcer. If it be well opened, and no orifice is connected with it, let the following dressings be applied:

1st. Thoroughly cleanse the ulcer with soap, water, and spirits; after which apply to the ulcer a little lint, and over this the following salve or plaster: Take *bayberry tallow*, one part; *white turpentine*, two parts: mix, and melt over a slow fire; then strain, spread upon a piece of linen, and apply to the ulcer. In some seasons and latitudes a little sweet oil is necesary, to make the plaster of the right consistence. Let this dressing be continued through the day. Apply also the *black salve*.

During the night use the following poultice: Take the *bark of the root of bayberry*, (myrica cerifera,) a sufficient quantity: bruise or pulverize; then add rain or soft water, and simmer until it is soft; after which stir in sufficient *Indial meal* to form a poultice, and continue during the night; it may be used during the day, provided there is any pain or inflammatory symptoms present. The original poultice was directed to be made in this manner; but I find that it is a considerable improvement to substitute the elm bark instead of the Indian meal, as it makes a better poultice.

I have found, by experience, the *bayberry* to be one of the most extraordinary remedies in scrofula, particularly in a state of ulcer, of any other article, either in the animal, vegetable, or mineral kingdoms; and if there is a specific in this complaint, I think it is this very plant or shrub. I have never yet known it to fail in a single instance, in all my practice, in the most advanced and worst stages of the complaint, and when they have been treated without any benefit by our most popular physicians and surgeons.

I have hitherto spoken of scrofula in a state of ulcer. I shall now give directions for the treatment of it in a state of ulcer connected with a sinus or orifice.

By a close examination often a small opening will be seen, penetrating deeply into the integuments or cellular substance, even to the bone, denuding the periosteum, and from this issues either a thin or thick matter. When such an opening is found or discovered, it should be kept open and freely discharging, by the use of tents made of twine drawn through beeswax or adhesive plaster, and then rolled in the *vegetable caustic*, and introduced as far into the sinus as possible.

In addition to this the sinus must be injected, by a proper sized syringe, morning and night, with a strong *concentrated decoction* of the *bayberry bark*, alternately with a solution of the *vegetable caustic;* a tea-spoonful to half a pint of water. Other astringent decoctions may be injected, as *oak bark* and *balm of Gilead;* and *discutients* applied.

The *black salve* may occasionally be substituted for the plaster first mentioned.

When the bone is diseased, which may be ascertained by the grating sensation which is communicated when probed, a few grains of the *vegetable caustic* must be introduced to the bottom of the sinus, and a solution of the same daily injected.

3d. *State of Tumour or Scirrhus.*—This variety or species of scrofula is very frequent. Hard, indolent, inert, and indurated tumours appear in the glands of the neck, which often continue a long time very stationary; at other times they slowly increase. Sometimes they are very painful, at other times they give none at all; but sooner or later, if they are not dispersed, they degenerate into malignant and scrofulous ulcers.

In the treatment of these tumours our first attempt should be to disperse

or discuss them, to effect which apply the *discutient ointment*. Rub the tumour well with the ointment three or four times a day: a poultice made of the *poke root*, simmered in rain water till soft, and then mashed, may be applied. It will be found very beneficial to bathe the tumours with salt and water, or best French brandy saturated with it. The ulcer may likewise be bathed with it.

Miss Hunt, of East Chester, N. Y., whom I recently cured of a cutaneous disease of long standing, and very inveterate, disfiguring the whole face with callous pustules, &c., informs me that she derived great benefit from the following ointment. It diminished or removed the hard tumour under the skin very effectually: Hydriodate of potash, one ounce; lard or fresh butter, four ounces: rub well together, and apply to the parts affected morning and evening.

A young lady of this city informs me that she found great benefit from the use of the following ointment, in a large scrofulous tumour, seated on the parotid gland of the neck: Take common sponge, Q. S., burn to ashes, which mix with lard a sufficient quantity, and apply to the tumour two or three times a day. One drachm of the ashes of the sponge to one ounce of lard, well mixed. These applications will sometimes discuss these tumours even when very large, if aided by proper internal medicine.

I recollect, however, having one case, on the neck of a young lady of this city, of very long standing, so large and so indolent as not only to baffle the skill of several physicians, but likewise my own. In this case I applied a cancer plaster, which removed it.

I am not very partial to this method, as it excites considerable pain, and requires skilful management. But it is seldom, if ever, required, if the means I have recommended be properly applied, and persevered in a suitable length of time.

When all means fail to discuss the tumour, mild dressings must be applied, until there are symptoms of inflammation or suppuration, and then it must be poulticed, as before directed. I removed a tumour with the *brown ointment*.

Constitutional Affection.—It appears that there is generally a scrofulous diathesis, or state of the system which may be known by a peculiar haggard and pale countenance, flabby muscles, and small tumours appearing in the glands in different parts of the body, attended with a considerable degree of debility, with more or less derangement of the digestive organs. When such symptoms present, give the following decoction: Take *yellow dock-root*, and *bark of the bitter-sweet*, of each a pound, bruise: add a sufficient quantity of water, and boil till all the strength is extracted, and reduced to two quarts; strain, and add four pounds of sugar; then boil a few minutes, to form a syrup: of this give to a child five or six years old from half a wine glass to a wine glassful three or four times a day. As a change, give the *alterative syrup*, to every quart of which add one ounce of the *hydriodate of potash*. Both are exceedingly well calculated to eradicate a scrofulous or other taint of the system. In addition to this the patient should take a *purgative* at least once a week. If small tumours are perceived in any part of the body, let the discutient ointment be applied to them three or four times a day, and also bathe with salt and water.

By pursuing this treatment I have succeeded in curing the most formidable cases of scrofula on record, one of which I here represent by the annexed figure.

Fig. 8.



The subject of the disease was a coloured man, then residing in Trenton, N. J. The swelling and inflammation were prodigious, and several physicians, who were first called, appeared to consider the case entirely hopeless. One of them observed that whoever cured the disease should be pronounced King of Doctors." It was first poulticed with the green root of *Indian turnip*, (arum triphyllum,) until suppuration followed, with *fifteen* different *apertures* or orifices, through which the pus or matter discharged. I now injected the *alkaline liquid*, and it issued through every one of them. *Tents* were used, to prevent the ulcers from healing; a plaster kept upon the swelling, and in other respects treated in the usual manner. It improved daily, till it healed perfectly sound, leaving but very small scars immediately over the sinuses or apertures.

May not the bayberry (the principal article used in the cure of this complaint) derive some of its medicinal effects from the muriate of soda which it imbibes from the salt water, near which it grows; or upon some peculiar organization arising from it?

It is somewhat remarkable that the bayberry should only grow near the sea-coast or salt water; which is known often to exert some beneficial effect on the patient by bathing with it.

Regimen.—The patient must be confined to a nutritious diet, principally milk. He should bathe once a week in salt water, and, if convenient, should live near it, in the country.

Salt water bathing used daily is exceedingly efficacious in removing a scrofulous taint of the system, rickets, white swelling, debility, and particularly those tumours and indurated glands so common to children. The last case I treated was seated and very severe, swelling immense, and no relief. He recovered very fast by giving the *alterative powders*, with the hydriodate of potash, bayberry, and elm bark, mixed with salt water for a poultice. Salt water bath daily, and a milk and vegetable diet.

A short time ago Mrs. Bonsal, from Lebanon, Ohio, consulted me for a

very severe, protracted, and almost hopeless case of scrofula. It had contaminated her whole system: debility, serious cough, ulceration, and tumours of the neck extending under the arm. I gave once or twice a week *mandrake physic*, *alterative powders*, our cough medicines, and applied *discutient ointment* to the parts, *pulverized blood-root* to the ulcers, and injected a decoction of the same into the openings. Under this treatment she recovered very fast, and, I believe, is now well.

In another very serious case I pursued the same treatment, with the addition of *hydriodate of potash* to the syrup, and applied to the parts an ointment made by simmering the *tincture* of *stramonium*, *hyoscyamus*, and bark of the bitter-sweet, equal parts, in fresh butter or lard till the tincture evaporated. It cured in a few weeks. As a substitute for the salt water bathing, add plenty of salt to common soft water: the water may be first tepid, then gradually colder, but no chill must be produced.

CHAPTER XV.

FISTULA.

The term fistula is generally applied to those kinds of ulcers which are very obstinate in their character, and which are attended with hardness, and sinous openings or orifices with callous edges; there are three species enumerated:

1. *Fistula in ano*, when situated in or near the rectum or anus.
2. *Fistula in perinæo*, when situated in the perinæum, and communicating with the urethra.
3. *Fistula lachrymalis*, a sinous ulcer, situated in the inner canthus or corner of the eye, obstructing the lachrymal duct.

Fistula in Ano.—Description.—By fistula in ano we understand a most serious, loathsome, and troublesome disease, which is located in the vicinity of the anus and rectum, and appears in the form of abscess and sinous ulcers, emitting a fetid discharge, with callous edges.

"It is a disease," says Sir A. Cooper, in which you will be called upon to operate more frequently, perhaps, than any other. I do not consider it a disease which is very easy to treat: it very often baffles the skill of the best surgeons." Dorsey says it is very difficult to be healed; and this statement is confirmed by the many cases which remain uncured, as well as the fatality which attends it. Henry VIII., King of England, it is stated, died of this disease.

Causes.—The causes of fistula are numerous; such as costiveness and relaxation of the bowels, derangement of the liver and alimentary canal, sedentary habits, high living, plethora, bruises, piles, &c. It is often connected with, and probably produces, a pulmonary disease.

Symptoms.—The *fistula in ano* usually commences with swelling near the rectum, attended with great pain, hardness, and acute inflammation; the tumour advances slowly to suppuration, and matter is formed.

In some cases, however, the disease proceeds till a sinus is formed, with very little pain—so much so, that the patient is ignorant of the time when t formed; but more generally the pain is very severe, swelling great, and

suppuration very extensive; and, in consequence of the pressure upon the neck of the bladder, or urethra, there is a suppression of urine.

Fistula in ano is more painful than a common abscess. The patient is in most excruciating pain when the fæces are voided; great pressing down, and very often retention of urine. There is considerable variety in the size and complication of fistula. Sometimes the sinus is confined to one side of the intestine; in other cases it nearly surrounds it Sometimes the fistulous sinus is very short, penetrating the anus a little above the ring or opening; at other times it is several inches deep, and extends near the os coccygis, or end of the spine; at other times it burrows to a great distance behind the gluteal muscles. I have seen cases where it appeared to extend underneath and above the spinal bone. I have seen cases, also, where the whole surrounding integuments and cellular substance were in a state of sinous suppuration or fistulous abscess; and the flaps or edges of the ulces projected an inch, and from which issued the most fetid and sanious matter: this happens more generally where there is a faulty state of the constitution.

Sometimes there is a communication between the bladder, vagina, os sacrum, and other contiguous parts; and when so, matter issues through every opening, and the very fæces or contents of the intestine (when the bowels are very soluble) are also discharged; thus constituting an *artificial anus*.

In the commencement of the disease the adjacent parts are generally sound; but whenever the ulcer has been of long duration, not only the parts about the anus, but even the perinæum and buttocks frequently become diseased. This may depend on different causes; but it appears most frequently to proceed from the matter of the abscess or sinus not finding a free outlet, and thereby spreading along the contiguous cellular substance, with numerous sinuses running in different parts; and the matter from them is usually sharp and acrid.

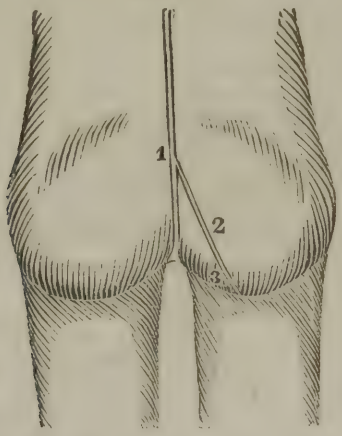
The most common form of the fistula in ano, after suppuration has taken place, is an opening or orifice extending from the verge of the anus, and running obliquely, and penetrating it or the rectum at a greater or less distance from its termination. This sinus has very hard, callous edges throughout its course; and the longer it has existed, the greater is the callous or hardness. It sometimes communicates with an internal cavity near the intestine; and, although it may not penetrate it immediately, which is somewhat doubtful, it does eventually, as far as my experience goes, in every instance. If a probe be passed up the orifice and a finger up the anus, this communication can be easily detected.

Sometimes there are two sinuses in the same neighbourhood, or very near each other, and communicate together; at other times one is directly opposite the other, or a considerable distance from it. From this opening issues a thin or thick matter or pus, and it is often very copious; but occasionally there is very little, or none, for a certain period: sometimes it will heal up for several days, then give considerable pain, break out again, and freely discharge.

These symptoms depend very much upon the general health and habits of the patient; but, be they ever so good, such is the inveteracy of a *fistula in ano*, that a spontaneous cure is seldom or never known. It generally continues to increase and grow worse, until there is an absorption of the fistulous virus or matter, which is translated to the lungs, and ends in consumption.

The following figure (fig. 9) represents an ordinary fistula. Number 1 shows the *anus;* number 2, the *sinus;* and number 3 the *nates* or *verge* of the anus.

Fig. 9.



Treatment.—The common method of treating a fistula in ano is, by a surgical operation, which consists, 1st, in making a common opening of the fistula with the rectum or the anus. A knife or bistoury is forced up the opening or orifice until it communicates with the bowel or intestine; the finger is passed up the rectum until it meets it, when both are drawn down together, which makes one common opening. It is afterward dressed simply with lint, and attempts made to heal it. 2d. Some recommend this operation alone, while others attempt to cut out the whole diseased flesh or fistula.

This course has been pursued by surgeons for a great length of time, both in Europe and America, but the practice is neither rational, philosophical, nor effectual. It is inconsistent with correct principles of the healing art; and, although, like many other operations, is sanctioned by the highest authority, it ought to be abandoned. My objections to the operation are, 1st, it is exceedingly painful; 2d, it is dangerous, sometimes proving fatal by irritation, inflammation, and mortification that follows; 3d, it is very uncertain in its effects, seldom or never effecting a cure, even after several operations have been formed; 4th, because I have a safer, milder, more effectual, and a radical cure for the disease, without the use of the knife.

Ever since I commenced the practice of physic I have been endeavouring to ascertain the merits of the ordinary treatment for this complaint. I have seen many on whom the operation has been performed, and some repeatedly, and I have found only one person during all that time who was really cured, and he suspected that he was not sound; besides, he came near losing his life by the extensive cutting, or incisions which were made. He informed me that such was the fetor occasioned by the wound made by the operation, that it was almost impossible to stay in his room. Another man informs me that he had been operated upon five times for the fistula in ano, and still he was not cured. Among the number of patients afflicted with this complaint who have applied to me, a considerable proportion of them had undergone a formidable operation for it; and, instead of having received any benefit,

were only injured; and this effect must be obvious to every rational person who reflects upon the pathology or the nature of the disease. I would ask how the act of merely dividing a diseased or indurated mass of flesh can remove it? especially when we take into consideration the morbid connexion that always exists between contiguous parts. It is well known that a simple incised wound readily heals; and if inflammation be the object of performing the operation, as some assert, it is quite insufficient to accomplish the purpose. Not only so: as soon as there is a common opening made between the fistula and the anus, it is very difficult to apply such dressings to the ulcers as are calculated to remove it. They cannot be applied directly to the diseased parts; and if they were, when the fæces pass the bowels they would probably be removed.

It is true, I have heard of some cures performed by the knife; but, upon strict inquiry, and upon the minutest examination, I know not that I have ever witnessed a solitary case in which a permanent cure had been effected, although occasionally, I think, the suppuration that follows it has proved effectual.

Again; how is it possible that a cure can be effected when the sinus is highly situated, very extensive, and beyond the reach of the finger? In such a case there is no chance or opportunity of curing it.

The after dressings, it is stated by every patient who submits to the operation, are as painful as the operation itself; and this he must daily submit to, besides the necessity of being confined to his room or bed for a great length of time. Not only so: the consequence which follows such treatment is sometimes deplorable. The sphincter ani is often cut, and the patient is unable to retain his stools, and they pass off involuntarily, with other pernicious effects which might be mentioned, such as hæmorrhage or bleeding, in consequence of cutting an artery.

What man, then, in his sober senses, will suffer a knife to be thrust up his bowels, and the parts ripped open and mutilated, without any prospect of a cure, when it can be removed by an easy, safe, and scientific course of treatment?

The practice, then, is cruel, unnecessary, and wrong. I know, by long and repeated experience, that the fistula is curable by means which are more expeditious, more easy, and neither hazardous in the use nor productive of evil in the event. It is true, the method which I pursue will dispense with the knife, such a favourite with many, wholly and entirely; but it will be attended with success, and produce that which every patient has a right to expect from his physician or surgeon—a speedy and permanent cure, without confinement to his room or house, and with ability to attend daily to his ordinary business.

I shall now give an improved method of treating this disease, which I have found altogether superior to that now pursued, and which has invariably and infallibly, in my hands, succeeded in every stage of the complaint; and that, too, when our most popular surgeons have been unable to cure it by repeated operations.

The treatment of fistula depends upon the stage in which we are called to prescribe. A very different course is required in a state of inflammation from that of suppuration or abscess. I shall first treat of the means to be employed in its incipient, forming, or inflammatory stage. First, moderate excessive inflammation; second, diminish painful or urgent symptoms; third, promote suppuration, if the swelling cannot be discussed; to accomplish which the *discutient ointment* may be first applied to the swelling; immediately after which let it be steamed or fomented with *bitter herbs*, *tansy*,

wormwood, *hoarhound*, *catnip*, and *hops*, a handful of each: add water, and boil until the strength is extracted. Put the whole into a small or suitable sized vessel, and add about half a pint of soft soap. Place a narrow piece of board over the vessel or tub, and let the patient sit over it fifteen or twenty minutes, with a blanket thrown around him to retain the steam. A *pot de chambre* is very well calculated for this purpose. The process or steaming must be repeated morning and night, or as often as the pain becomes severe.

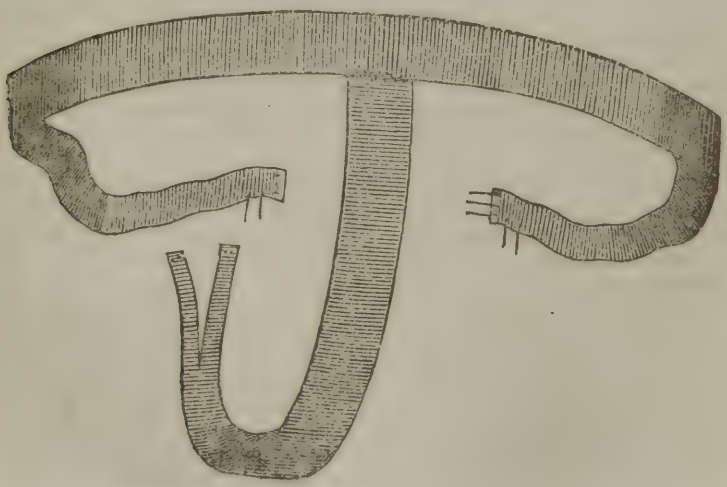
This operation, in almost every case, immediately relieves the patient; even when the parts are so tender that they cannot bear the weight of the bed-clothes, it so much diminishes the irritability and soreness, that the patient can afterward bear considerable pressure upon the swelling. In a word, it usually affords relief in the most painful stage of the disease; it not only allays the pain, but promotes either resolution or suppuration.

As soon as the patient has been thus steamed, apply a poultice made of equal parts of powdered *linseed* and *elm bark*, mixed to form a proper consistence; let this be applied tepid: about a table-spoonful of *sweet oil* may be added, which is cooling, emollient, and prevents it from adhering to the skin. It will be necessary to renew this poultice morning and night. I have, in many cases, found a *ley* poultice excellent, where the other did not agree with the patient. Every time either poultice is applied, let the *discutient ointment* be rubbed on the swelling.

It will be necessary, for the sake of convenience, as well as to secure the dressings, to use a bandage made by passing a piece of linen, of a suitable width, just above the hips, and fastened on the right or left side of the abdomen with tapes or buttons; a piece fastened to this behind, and brought between the legs, and secured to the bandage around the body; likewise in front, or before, in the same manner. This will effectually secure the poultice and the other dressings.

The following figure represents this bandage, and will enable any person to prepare it in a few minutes:

Fig. 10.



When the pain prevents sleep, and should not the means recommended sufficiently mitigate it, a portion of the *diaphoretic powders* may be given at bed-time, or an opium pill. Perspiration should likewise be promoted, the feet daily bathed, warm tea drank, and the skin thus kept moist.

It will be very necessary also to attend to the bowels: an emollient *purgative* should be given every day or two; the *cold-pressed castor oil* is very good, the dose of which is an ounce.

Sometimes the parts become so swelled that any kind of physic causes much pain. Under such circumstances injections must be relied upon.

With this treatment the inflammation will gradually subside, and matter or an abscess will form, which is usually very large and extensive. This may be known by a subsidence of the pain, redness, and the tumour becoming softer, yielding readily upon pressure. Sometimes the pus or matter concentrates, more especially to a certain part of the swelling, which projects a little, assuming a white appearance. When these symptoms appear an incision may be made to let out the matter, which I have occasionally done; but I prefer, where the patient is willing to wait, to let the abscess burst spontaneously, or by the aid of the poultice, in which case there appears to be less *callus* or hardness remaining, and the sinus is not so liable to close. There seems to be a necessary digestive process for the fluids to pass through before matter is formed, or is in a proper state to be expelled.

It is surprising to see what a vast quantity of matter these abscesses contain, and how fetid the discharge is. I once opened one in a female, who had been previously cut for the complaint, which poured out a stream of the most offensive fluid, and rendered it almost impossible to continue in the room. It soon discharged a quart.

It is equally astonishing how extensive oftentimes are the ravages of this disease. I have seen the inner portion of the rectum completely denuded as far up as could be seen. I have seen it destroy the parts from the anus to the testicle, as well as for a great distance around it; also to extend into the vagina of women, and destroy the adjacent integuments to a considerable extent, in which case a portion of the matter is discharged by the vagina. When the disease becomes so seated or extensive, there is apt to be an absorption of the fistulous virus or matter into the system, causing great constitutional debility and disturbance. Sometimes it is translated to the lungs, and terminates in the consumption. Indeed, this is the most usual method of its proving fatal. Having, then, arrived at a stage of the disease in which suppuration has taken place, there must be a variation in the treatment. I mean after the matter has been well evacuated from the abscess, and the pain, swelling, and inflammatory symptoms have subsided; for, until this has taken place, the same treatment must be continued, especially the *poultice*.

It sometimes happens that even a real fistulous abscess will heal up after a short time, but generally there remains an indurated tumour, in the centre of which there is a small hole, orifice, or sinus, from which the matter discharges, and which extends a greater or less distance from the verge of the anus, running obliquely to the *intestinum rectum*, communicates with it lower or higher up, or at a greater or less distance from the end of the bowel or anus. The peculiarity and difficulty of curing this disease is the *hardness* or *callus* which lines the sinus. It is sometimes almost as hard as ligament, or as tough as a piece of whitleather; and a person familiar with the disease can trace the course of it from one end to the other with his finger, without ever seeing it. It is owing to this characteristic symptom that opening it with the knife or bistoury with the rectum is so ineffectual.

Our next object, then, will be to remove this hardness, and place the ulcer in a condition to heal; to effect which we have only to act in the capacity of a servant to nature. We must watch with an eagle's eye her attempts to remove the complaint, and all we have to do is, to aid her in her efforts when she is inadequate to the task; and in a fistula her attempts to restore health appear, in almost every case on record, to be too feeble, and it therefore becomes our duty to render assistance. We see plainly what she endeavours to accomplish, which is, such a state of inflammation and discharge as will remove the callous edges of the orifice, and, by adhesive inflammation, agglutinate or unite the separated parts together. Then, in obedience to the dictates of this great teacher of the healing art, we must first prevent the sinus from closing; second, establish a greater or *preternatural* discharge from it. It is not sufficient to create inflammation alone, for this is insufficient to heal the sore. The diseased part must be first removed, before it can be placed in a state for healing; in other words, we must remove the offending cause before a cure can be effected. The first of these objects (the act of keeping open the fistula) may be accomplished by introducing a suitable sized tent, made of the ravellings of linen or thread; or a piece of twine will answer. It should be made small or pointed at one end, similar to a probe, and drawn through beeswax, or some plaster of a proper consistence, in order to stiffen it; and then it is to be introduced as far up the sinus as possible, and a very small portion left out; after which a little lint should be placed on the end of it, and a plaster of the *black salve* applied. On this a compress should be placed, and secured by the bandage, as before-mentioned. The tents should be gradually enlarged, to fill the opening. Generally, when first introduced, they are required to be exceedingly small, and can be introduced only a very short distance; but the orifice becomes more open, and in a short time larger ones can be used, and they will penetrate to the whole depth of the ulcer: nor will they excite any pain, as many might suppose; for the matter soon renders them soft after their introduction. It is not sufficient to introduce these *tents* without any application upon them. It is necessary to make use of some stimulating agents; and for this purpose I employ, with decided benefit, an *alkali*, or *preparation of potash*. Let *ley*, made of hickory ashes, be boiled down until it is perfectly dry; then to be removed from the vessel, pulverized, and kept from the air. A few grains of this must be put upon the tent every time it is introduced, which should be morning and night. It soon alters the nature of the discharge, rendering it more healthy, the fistula less irritable, and also subdues the inflammatory state of the system. It excites sharp pain for a few minutes; but, instead of operating like common *caustics*, causing greater inflammation, it removes it. The *carbonate of potash* will answer the purpose, but I think does not act so kindly as the preparation just mentioned. In the next place the syringe must be resorted to, to aid in curing the complaint; and we may commence by injecting into the sinus a solution of the article just named. About one drachm of the *alkali* may be dissolved in eight ounces of rain water, and injected once a day, the strength of it gradually increased, as the patient can bear it. *Weak ley* answers very well, the strength of which may be gradually increased, as required: there is no danger in using it very concentrated, for the cure is expedited in proportion to its strength; but we must be governed by the feelings of the patient, which will not permit its being used too strong, as it might cause too much pain. This liquid should be injected once or twice a day. Soon after a fistulous abscess breaks, the parts are too irritable to bear the use of the

syringe: a little time should be allowed for the soreness to subside; and I often commence with the use of injections consisting of *castile soap* and *water*. The fistula may be washed twice a day with salt and water. This course must be pursued as long as the fistula continues to grow better; although such is the insidious nature of the complaint, that, after the painful symptoms have subsided, the patient is unable to decide whether he is improving or not, although the callous or hardened edges of the fistula are daily diminishing.

The best, and only sure, criterion to ascertain whether the morbid or diseased organization has been removed, is, the quantity of matter discharged when no dressings are applied; and, therefore, when the fistula becomes *pitted*, or *depressed around the edges*, and the hardness in a measure gone, a trial may be made to heal it, by omitting the use of the tents and the syringe The *plaster* or *salve* should only be applied, which will enable the practitioner to decide whether the discharge arises from the fistula itself, or whether it arises from the stimulating properties of the agents or medicine made use of; for *I may say, in a word, that the principle of cure depends upon the act of making and keeping up a permanent issue or drain upon the fistula, until the morbid nature of it is so destroyed that the edges of the sinus may agglutinate and heal.* In general, however, after these applications have been used a sufficient length of time, the discharge of matter will gradually diminish, and the fistula will close in spite of the stimulus arising from the dressings.

It is always best to wait, before dressing the fistula, till there has been an evacuation from the bowels, provided this generally takes place daily, and in the morning, as the applications are sometimes disturbed by the passages.

The parts should first always be well washed and cleansed with soap and water, to which a little spirits should be added.

It is better for the practitioner to attend personally to the dressings, if practicable, as this will facilitate the cure. But in more than half the cases which have been attended I have been unable, from a multiplicity of business, to do it, and have, therefore, committed it to the wife, husband, or a friend; and, although a cure is invariably made, yet it is often much more protracted. A person well experienced in the treatment can cure it in half the time that will be required for any one who must first be instructed, and then act only under the supervision of the physician.

In making objections to my practice, some have asked, how can my application be made to a *fistula* when it runs very crooked or obliquely, or perhaps passes off laterally into the flesh? In answer to which I have to observe, that I know not that any such case occurs. At any rate, I have never yet seen a fistula in which I could not introduce the medicine to the very extent or bottom of it, either by the use of the *syringe*, or by some of the other means recommended. But should this not be the case, if the applications do not penetrate to the bottom, provided a cure is performed, the *modus operandi* of the agents employed is of little moment. It is sufficient for us to know that they have the desired effect.

It is necessary to administer internal as well as external applications. A *purgative* should be given once a week, and, in addition, an alterative course pursued, to remove any morbid taint that may exist or give rise to the complaint; for this purpose nothing is better than the *alterative syrup*, which the patient may take three or four times a day, as directed under that head.

A fistula in ano is certainly one of the most obstinate, the most loathsome, and the most serious of diseases that afflict the human body; and, in consequence of its inveterate nature, it requires considerable time to effect a

permanent cure, especially when the disease has become deeply seated. No definite time can be given in which it may be cured: in some cases it may be effected in a few weeks; others will require a number of months. But, where the treatment here laid down is strictly pursued, it will infallibly cure the disease.

I have thus given the description, causes, symptoms, with the common and reformed treatment, of *fistula in ano;* and I must now submit it (as I do the treatment of other complaints) to those who have honesty and candour sufficient to appreciate or test the practice which I have recommended; and I hope they will ascertain, by experience, the comparative merits of both the old and reformed or improved method, hoping that prejudice will not so far blind the eyes of the practitioner as to prevent him from giving the treatment of this or any other disease a fair and impartial trial. We have experience and facts for our superstructure; and, therefore, we solicit any one to overthrow it, if possible, by fair and honest means. My mode of treating the fistula in ano, in particular, has excited much attention, and has induced some physicians, who have had the most indubitable evidence of its efficacy and superiority, to request me to publish it to the world. I have done so, not only so as regards this, but other diseases; and for the merits of the same, I must appeal to the impartial decision of the many who have tested it, and to an enlightened and ingenuous public.

Considerable pains were taken and exertions made, some years ago, by one of our most distinguished merchants, to extend the benefits of our improved method of treating *fistula* to other parts; but he was defeated in his philanthropic designs by the envy and jealousy manifested by the most egregious misrepresentations, falsehood, and calumny. I subjoin a brief statement of the facts, by way of illustration.

Between twenty and thirty years ago I was sent for, about sixty miles, to attend an influential person in this city, labouring under a fistula. I came, and succeeded in effecting a cure; he not only compensated well for it, but used his exertions to introduce me into practice in New York; and such was his success that I was induced to locate here.

Subsequently Mr. A. G. Thompson, one of the most wealthy and respectable merchants or auctioneers of this city, having ascertained the merits of the reformed system in this and some other complaints, expressed an anxiety that its benefits should be extended to others, and that I should meet with a suitable remuneration for the discoveries and improvements made in the healing art. As he had very little hope that our government, or any body of men, would bestow their patronage for any improvement of the kind; and, entertaining an exalted opinion of the character of Alexander, the late Emperor of Russia, in patronizing everything useful, or calculated to benefit mankind, he wrote a letter to him, with certificates of cure, under the seal of the Russian Consul. In due time Mr. Politica, the Russian Minister, at Washington, received instructions from the Russian government to inform the author that, if he would repair to Russia, he should be rewarded according to deserved merits. In the meantime the opinion of a popular physician in this city was solicited respecting the merits of the treatment or remedy; and such was his malicious reply, that the undertaking was frustrated. This shows what envy, ignorance, prejudice, and self-interest will effect.

Those who have any doubts of the curability of fistula without cutting, may make inquiry of those who have been treated, both in the city and county. The following persons I recollect of having cured, besides others: Mr. Henry

Crocheron, first operated upon by Dr. Ferris; C. Lyon, master of the ship Ohio; ditto, steamboat Columbia; his brother, ditto; Moses Odell; William Gaulidet, first cut by Dr. Smith; Mr. Post; Mr. Oliver; Mr. Jacob Anthony, formerly teller in the United States Bank; Capt. Gregory; Mr. Meyers; Capt. Knapp; Mahlon Day, bookseller, Pearl-street, first operated upon by Dr. Kissam; Mr. Mather, ink-maker; Mr. Clark, wholesale grocer; Mr. George Peterson, then leather inspector; Mr. Emmons; Mr. Allen, a merchant from Columbia county; Peter Graham; Mrs. Tanner; Mrs. Lecount; Mrs. Grinnel, Mrs. Nash; and numerous others.

Females should learn to treat and cure their own sex in this and other diseases generally.

Fistula in the Perinæum—Description.—By this disease we understand an abscess which terminates in a fistulous sinus into the perinæum, and penetrates the urethra, which carries the water off from the bladder. The treatment of this species of fistula is the same as the fistula in ano.

Fistula Lachrymalis.—A swelling and inflammation in the inner corner of the eye, occasioned by an obstruction in the duct which conveys the tears. The object in the treatment should be, to remove the obstruction. Occulists inject water into the puncta of the lids, by means of a small syringe, which may relieve it: if there is swelling and inflammation, use *eye water* and the *brown ointment;* smoke *capsicum* and *sage*, as in catarrh, and force the smoke through the nose: use also the *cephalic snuff*. Some bore a hole through the bone, and introduce a metalic tube; this is very painful, and only affords partial relief.

CHAPTER XVI.

FISSURE OF THE ANUS.

There is a crack or fissure in the anus or rectum which is exceedingly sore and troublesome; it proves very obstinate and painful. Surgeons cut down directly upon, and through, it; but I consider this bad practice.

Treatment.—Apply a little of the *vegetable caustic*, in powder or solution, daily; also the *celandine* and *bitter-sweet ointment*.

"A distinguished judicial officer of the United States," says Dr. A. H. Stevens, "who refused to submit to an operation for fissure of the rectum, thus describes the mode in which he treated himself: 'I betook myself to bed and maintained the horizontal position; I kept myself on a very spare diet, living on arrow-root and gruel: after a day or two thus spent, I requested my surgeon to apply caustic; this he did twice, by passing the pencil slowly over the anus, which was done by the aid of long forceps: the application of the caustic produced acute suffering at the time. I used flaxseed enemas every day, and warm hops, both every other night, and regularly used the belladonna ointment: under this treatment I got well in nine or ten days.' I have little doubt," he concludes, "that this mode of treatment would succeed in a great many cases of fissure of the anus."—*New York Lancet, No.* 8.

CHAPTER XVII.

PILES. (*Hæmorrhoids.*)

Description.—The piles appear in two states: 1st, a varicose, or preternaturally distended state of the veins, in the vicinity of the anus; 2d, in a state of tumour or excrescence, which apparently consists of a solid, fleshy mass.

The first is internal; the second, external.

Causes.—The piles are often occasioned by aloetic purgatives. When I first commenced the practice of medicine, not knowing this fact, I took a large dose of aloes, which produced the piles, attended with great severity and obstinacy. Sedentary habits, corpulence or a plethoric habit, a morbid condition of the liver, pregnancy, costiveness, and drastic purgatives of any kind will occasion them.

Symptoms.—A patient afflicted with the bleeding piles is subject to greater or less discharges of blood, from a rupture or distention of the veins while evacuating his bowels, and sometimes a fatal hæmorrhage succeeds. The founder of the Arian system of religion, and the philosopher Copernicus, are said to have perished in this manner. I was acquainted with a Methodist minister who had bled, at different times, several gallons from the hæmorrhoidal vessels, by which he became exceedingly reduced and emaciated. This symptom continues a longer or a shorter time, according to circumstances.

There are sometimes tumours internally, but more generally they are most numerous externally.

They usually commence with dyspeptic symptoms, nausea, &c. There appears to be a morbid or acrid secretion from the liver, which either causes costiveness, or such a state of the bowels as brings on the complaint. The patient first experiences an uneasy sensation about the rectum, especially when he is costive, and anything passes the bowels. He first perceives a small tumour at the end of the anus, or a little distance up, which an evacuation forces down. As the disease increases the inconveniences attending the complaint are very great. There is extreme pain in going to stool, followed by a great tenesmus or pressing down, with a heaviness, and an itching, disagreeable sensation through the hips, attended with bleeding, and sometimes by a *prolapsus ani*, or falling down of the bowel; oftentimes a descent of a large mass of tumours; and these, if the disease is not cured, or is protracted, remain large, hard, and round, and difficult, if not impossible, to reduce. When the bowels are relaxed or constipated, they are much worse. Sometimes inflammation supervenes, followed by suppuration, giving rise to abscess and fistula. The pain attending this complaint is often very distressing.

Treatment.—In the treatment of either species of piles, whether bleeding or blind, (as they are vulgarly called,) or in a state of tumour, the first object will be to obviate costiveness, and to regulate the bowels by laxative medicines and a due course of regimen; but aloes, particularly uncombined with other substances, must never be given. Medicine that acts moderately upon the bowels is calculated to remove that morbid state of the liver and stomach which not unfrequently gives rise to the complaint. When the

fæces are so impacted or hardened that neither laxatives nor purgatives would be proper to administer, an emollient *injection* or *clyster* may be given. The bowels having been properly evacuated and regulated, our next object will be to employ such local applications as are calculated to relieve or remove the disease; and they will depend upon the kind of piles for which they are prescribed.

1st. *Bleeding Piles.*—If bleeding is present, or if we are called to prescribe for what is termed the "bleeding piles," in which hæmorrhage is the most predominant symptom, the following ointment will be found very effectual in arresting it: Take the *red* or *styptic powders*, pulverized, one part; *Venice turpentine*, two parts; *lard*, eight parts: add the whole together, and simmer over a gentle fire till the lard is melted. Remove from it, and continue to stir until it is cold, in order to mix or incorporate the articles. Let a small portion of this be introduced as far up the bowels as possible with the finger, or on a piece of lint, or in any manner that can be most conveniently done. The first application of this ointment usually stops the bleeding.

2d. *Blind Piles, or in a state of Tumour.*—If this variety of piles is in a state of chronic inflammation, with swelling, &c., astringent and refrigerant or cooling washes should be applied. The following is good: Take *acetate* or *sugar of lead*, one drachm; *borax* two drachms; *soft* or *rain water*, one pint: dip a piece of linen or muslin in this liquid, and wet the parts occasionally with it; after which apply the tincture of garden *celandine*. This wash is cooling and discutient. During the time that these local applications are made, administer internally the *pile electuary*. This medicine is given internally, to correct a faulty state of the liver and stomach, which causes costiveness, and, subsequently, the piles. In almost every case of piles this *electuary* either proves a sovereign remedy or gives immediate relief, and I have found it superior to all other preparations; it has a very favourable effect upon the parts diseased, by its laxative, cooling, and astringent effects. When the tumours become very painful, and are attended with considerable inflammation, a poultice made of *slippery elm bark* and *milk* will be found a valuable application; it usually soon gives relief, and may be continued, with the *stramonium ointment*, until the swelling and inflammation subside, or until there is suppuration, which sometimes supervenes. It is desirable always to reduce the tumours after they are forced down, and this may be done by applying a little ointment to the finger, and pressing upon the most prominent tumour until it returns. A leech or two, applied to the tumours when they are very much inflamed and painful, often give great relief. The *spirits* or *tincture of spearmint*, applied to the parts on cotton, is very good.

There are few complaints in which *diet* has a more beneficial effect than in the piles. They are brought on by high living, and may be removed by an opposite course, or by spare diet. *Rye bread* should be preferred; and Indian in any form, eaten with molasses, stewed fruit, &c. No wines or ardent spirits must be used.

From time to time an attempt may be made to return the bowel, by gently pressing on it with the finger which has been immersed in a little ointment. It is sometimes necessary to use a bandage to support the parts.

Some profess to have experienced great benefit in the piles by steaming them over oakum or tarred ropes; but steaming them with bitter herbs will, probably, do better.

Radical Cure for the Piles.—The above treatment will not only relieve, but often cure, the piles: but sometimes. when they have been neglected

or improperly treated, they become so seated and enlarged that it is necessary to remove the tumours. Should this happen, or should not the above means be sufficient to remove the complaint, a piece of silk or thread may be passed round the largest tumour, (after having been drawn down,) and tied as tight as the patient can bear; and the knot may be occasionally drawn a little closer. This will stop the circulation in the tumour or tumours, and in about a week they will be separated, and a radical cure effected.

I have removed pile tumours by *ligature*, the *knife*, and *caustic*, and have found the following treatment superior to all other methods: Take a piece or roll of *caustic potash* and cover it with paper or muslin, except the end, and carefully touch the tumour every day with it; keep the liquid, as it dissolves, from running down on the surrounding parts; after which apply an *elm poultice*, with yeast. It usually bleeds some and leaves it black, and soon sloughs off. I have cured some very obstinate cases in this manner. I discovered this from analogy, or its effects on other flesh.

A person applied to me for the removal of a pile tumour with which he was afflicted, and which was so troublesome that he was rendered miserable by it. He had been to Europe for his health, and, on his arrival in this country, had applied to Dr. Jackson, of the hospital of Boston, who proposed an operation by the knife. I removed it by the *caustic potash*, as above.

In very obstinate cases, where other means have failed, any of the following may be tried: Wash the parts four times a day with a very strong solution of *alum* and water; before they become dry, dust on powdered alum. E. Underhill found this to cure in several cases. Also, take a sufficient quantity of garden parsley and boil in sweet milk until reduced to a pulpy consistence; then strain, add hogs lard, and boil to an ointment, which may be rubbed on the part affected. This has been known to have cured many.

The following is a good medicine for the piles: Equal parts of sulphur, cream of tartar, and magnesia, given as a laxative, in tea-spoonful doses Take a small paper of cut tobacco and put it in a frying-pan; place the pan over the fire and burn the tobacco to ashes, (but not suffer it to blaze,) and then mix it with lard, and anoint the piles four times a day. It cured T. Baxter entirely, after being troubled with the piles a number of years. Many others have been effectually cured by the same.

Dr. Thomas Cooke, of Philadelphia, states that golden seal, in half tea-spoonful doses, will cure the piles: the dose to be increased.

A gentleman came to me from the country, who had been many years afflicted with the piles in the worst possible stage: he was disabled from work; matter discharging from the rectum; enormously swelled; tumours so large that the passage was literally closed; and sometimes he was in fits when there was an evacuation from the bowels. He could obtain no relief from the physicians in the country nor in this city; so obstinate was the disease, that I despaired myself of being able to effect a cure. I however concluded to try a new method, by way of experiment: there were three large prominent tumours, which closed the passage; the inner one being the most irritable, to it I applied the smallest quantity of the *caustic potash*, which occasioned less pain than I anticipated; it turned it brown, and by the use of a poultice of slippery elm mixed with yeast, it soon began to slough off. I renewed the application of the potash every day, or every other day, until the inner tumor disappeared, which afforded a pretty easy passage to the fæces. I then applied it to those tumors on the sides until they disappeared. He has now recovered, and gone to his usual avo-

cation. I confess I was surprised at the successful result of this case; it appeared impossible that the patient could ever be cured. The piles were so bad that a surgeon here was afraid to operate on them.

A botanist from Connecticut informs me that a plant called "*sweet gale*" is an infallible cure for this disease. An infusion to be made of it, and drank freely

CHAPTER XVIII.

STRICTURES OF THE RECTUM.

Description.—It is sometimes the case that the rectum, from various causes, becomes partially or nearly closed by the formation of tumours or scirrhus, which almost renders it impossible for the fæces to be voided, except they are in a very liquid state. It is complicated not unfrequently with ulcer, from which there is a discharge of pus or matter.

Causes.—It may proceed from costiveness or hardened fæces, piles, drastic purgatives, and other sources of irritation.

Treatment.—We may commence the treatment of stricture of the rectum first by ordering such medicine and such a course of regimen or diet as are calculated to keep the bowels in a soluble state. In the commencement a portion of our common purgative may be given; afterward a laxative pill, sufficient to obviate costiveness, or to act moderately upon the bowels.

One or two of the troches, mentioned under the head of *pharmacy*, may be introduced up the rectum daily, to be accompanied with the use of the discutient ointment.

It sometimes becomes necessary to dilate the stricture, which may be done in the following manner: Take equal parts of the bayberry and common tallow; then make candles of different sizes, in the ordinary manner; they should be about six inches long, and a little smaller at one end than the other. Immerse in sweet oil the end of one of the smallest of these, which should be of such a size as can be introduced without much pain, and let it be gently put up the rectum, and continued half an hour each time, or as long as the patient can bear. The same should be repeated for three or four days, and then one larger used the same length of time; and thus the size should be increased as the stricture becomes dilated. The patient himself can generally introduce them without any difficulty. This will be found a very excellent method of treating strictures of the rectum.

CHAPTER XIX.

PROLAPSUS ANI, OR FALLING DOWN OF THE BOWEL

In this disease the rectum protrudes in a greater or less degree at the anus, either from mere relaxation of the internal membrane of the bowel, or from a real displacement and inversion of its upper portion, which presents itself as an external tumour. The tumour sometimes admits of reduction with ease; sometimes it cannot be returned without difficulty. The disease

occurs in persons of all ages; but it is most common in infants and elderly subjects. Such examples as are combined with thickening and relaxation of the inner coat of the rectum, piles, or other tumours, are sometimes attended with a copious discharge from the anus, and from the prolapsed bowel, of a serous and mucous fluid, mixed with blood.

Causes.—The disease may originate from circumstances tending to relax and weaken the parts which retain the rectum, or its inner membrane, in its situation, and from various other causes. The habitual prolapsus, which has existed for years, and comes on whenever the patient goes to stool, is the case which is most difficult of relief.

Treatment.—The treatment of prolapsus ani embraces three principal indications:

1. The speedy reduction of the prolapsed part.
2. The retention of the reduced bowel.
3. The removal and avoidance of the causes by which the disease is induced.

In general, when the case is recent, and the tumour not of immoderate size, the reduction may be accomplished with tolerable ease, by putting the patient in a suitable posture, with the buttocks raised and the thorax depressed, and by making gentle and skilful pressure either with the palm of the hand or the fingers; but, from the inflammation and swelling, this cannot always be done, and it will not do to press too hard or exert too much force, for fear of irritation. No farther attempts must be made at reduction, until means have been made use of to reduce the inflammation. Astringent washes may first be tried, if the pain and swelling be not too great. Take *white oak bark*, bruise, and make a strong decoction, and to every pint add a tea-spoonful of pulverized alum; let the parts be frequently washed with this: soon after apply the *brown ointment*, as directed under the head of "piles."

After these have been applied, should it still continue irreducible, apply the *slippery elm bark* poultice, to be secured by the T bandage, as recommended under the head of "fistula." This will soon lessen the inflammation, so that the intestine can be reduced.

If it proceeds from a relaxed state of the bowels, medicines must be given for that complaint. The diet should be such as to keep the bowels in a soluble state, as rye or brown bread, "mush or hasty pudding and molasses."

After the protruded intestine has been replaced, let the *brown ointment* be continued for some time, until the tone of the parts is restored.

I have attended some deplorable cases of this complaint, particularly in infants, where the anus had been protruded for many weeks, and which had extended several inches, with great swelling, inflammation, and ulceration; and yet recovery followed by pursuing these means. In one case it was necessary to poultice a month before the swelling was sufficiently reduced to return the intestine.

CHAPTER XX.

WHITE-SWELLING—HIP DISEASE. (*Hydrarthrus.*)

Description.—This is a very inveterate and painful disease, and is usually seated on some of the joints of the body; principally the hip, knee, ancle, and elbow. As the name implies, the skin remains white, even in

great inflammation. Sometimes it is rather mild in its character, at other times exceedingly painful; and the seat of the pain is in the periosteum or covering of the bone, which in most cases becomes diseased, and exfoliation takes place. It is peculiar to children, and those of scrofulous habits.

Causes.—A taint of the blood, cold, injuries, &c.

Symptoms.—In the commencement there is a very severe pain felt deep in the joint, and, when the child or person moves, the pain becomes intolerable. As it progresses there is swelling, but no redness; a shining whiteness, with hardness or callus. It slowly increases, till the swelling is very considerable and the distress great, and suppuration ensues. There is a discharge of matter from a number of openings The limb wastes, becomes bent, and, when in the hip, osseous matter fills up the joint, and slowly dislocates the head of the bone, either causing permanent dislocation or stiffness: fleshy excrescences shoot out from the ulcers, showing that the bone is affected, and in process of time there is generally small pieces of bone detached. The patient is very thin and pale, with much constitutional disturbance, hectic fever, &c.

Common Treatment.—The common treatment for white-swelling, like other complaints, is very bad. After tormenting the patient awhile with blistering, setons, mercury, &c., amputation is resorted to.

That the reader may have an opportunity of knowing the inefficacy of the present practice, I here subjoin the report of B. C. Brodie, from a work called "Morisonia," page 310.

Of Tumours, White-swellings, and Diseases of the Joints.—"I have now before me the work of B. C. Brodie, F. R. S., Professor of Anatomy and Surgery to the Royal College of Surgeons, and Surgeon to St. George's Hospital, on diseases of the joints; and, from the cases stated, a more unsuccessful practitioner never presented himself before the public. One would think this learned and dexterous surgeon considered it only the patient's wish to have his limbs torn off, or to die a wretched, lingering death. What have his researches benefited the world, by his cutting up, dissecting joints, or giving plates of diseased, carious bones? When once you have imbibed a true knowledge of disease and of the human body, don t you see the futility of this practice? and has not experience proved to you the quackery and perniciousness of such medical practice? Without entering into this author's mode of treatment, I shall merely lay before the reader the cases stated, and allow him to form his own opinion from them."

"In all, this volume contains sixty-five cases, all terminating in the same unsatisfactory way; and it is certain that, even in the most favourable cases, not one of them approaches to a radical, perfect cure; and that, if the patients who did not die could be called together and examined, they would declare that their pain and infirmities are far from gone. It is perfectly unnecessary to go through the various treatments, conjectures, and false doctrines set forth in the work; leeching, bleeding, blisters on the part, incisions, cutting out, embrocations, and a variety of fatiguing nostrums without meaning, and at last amputation; such are the means of cure recommended. Deluded people! your lives and comfort are sacrificed by this barbarous science, surgery."

Treatment.—When the disease first begins steam the parts over bitter herbs, such as the following: *Tansy*, *hops*, *wormwood*, *catnip*, and *pennyroyal*; make a strong decoction, and add half a pint of soft soap: boil again a few minutes, then put all into a suitable vessel, and place the limb over the steam, with a blanket around to prevent any escape of it; and thus steam for fifteen minutes. If there is not sufficient heat to make it perspire, throw in a hot

brick or pieces of iron; if there is too much heat, raise the blanket and let it escape; then wipe dry, and apply the following liquid: Take *oil of hemlock*, half an ounce; *oil of sassafras*, half an ounce; *gum camphor*, half an ounce; *tincture of opium*, half an ounce; add to one pint of alcohol: mix; bathe, and repeat as often as it is dressed, or two or three times a day: after this apply a *ley poultice*. This course, particularly the fomentation or steaming, affords immediate relief, while the poultice lessens the inflammation and favours suppuration, when there is any disposition for matter to form. As a general rule, the fomentation may be repeated every night, or whenever the pain is very great. After suppuration has taken place the ulcers must be treated the same as laid down under that head.

Contraction of the Sinews or Tendons.—In addition to steaming the parts when the limb is contracted, bathe with the following oil: Take *oil of sassafras*, *wormwood*, *turpentine*, *neats-foot oil*, *gum camphor*, equal parts: mix; rub or bathe the sinews with this oil or mixture thoroughly twice a day, near the fire. Skunks' grease, or oil in which angle worms have been simmered, may be applied, if other means fail.

Callus.—In almost all cases of white-swelling there is an enlargement or callus about the joints; and this often remains after the ulcers have healed, and throws the leg into a state of semiflexion, or such contraction that the patient cannot touch it to the floor or ground, as represented in the annexed engraving, (fig. 11.) To obviate this, in addition to what has been recommended, the above oil should be applied, and friction or rubbing the part three or four times a day, for half an hour each time; after which let a *strengthening plaster* be applied to the parts.



FIG. 11. *White-swelling of the Knee.*

INTERNAL TREATMENT.—The general health must be attended to. The pale and unhealthy appearance of the countenance of children afflicted with white-swelling shows that there is a scrofulous or morbid taint of the system; and, therefore, it is of primary importance, while we apply proper local applications, that we improve the condition of the general health. To this end, let a *purgative* be given once or twice a week; likewise the *alterative syrup* be daily exhibited, according to the age and strength of the patient; to every bottle

of which add half an ounce of the *hydriodate of potash*. Dose, for a child ten years of age, a table-spoonful three times a day. Bathing in salt water is often very beneficial. The scrofulous syrup is also excellent, and may be used part of the time. When the pain is very severe, and prevents sleep, let an *anodyne* be given.

This treatment I have found invariably successful where the disease has not proceeded too far, or where the constitution has not been too much undermined.

I have successfully treated patients labouring under white-swelling, nearly in every stage of the complaint, when all other means have been tried in vain; and, wherever the above treatment has been pursued, it has been attended with the same salutary effects. I therefore consider it one of the most valuable improvements in medicine or surgery.

When the patient is labouring under the most excruciating pain, one single process of steaming or fomenting, in the manner described, usually operates as a charm in allaying pain and imflammation.

Mrs. Moore, of New Jersey, became very celebrated for the cure of white-swelling, by using a remedy obtained of an Indian chief, who had cured a very distressing case. As Mrs. Moore was about to leave for the state of Ohio, some of her neighbours, who valued the remedy very highly, purchased it for me for the sum of twenty-five dollars. I consider this an improvement on my former treatment, although it had ever been very successful. I subjoin the remedy as I received it; the principal addition to mine consists in the application of medicated vapour or steam to the parts.

1st. *Steaming or Fomentation.*—Take for the sweat *catnip*, *hearts of mullein*, *double tansy*, *wormwood*, and *may-weed*, two double handsful of each; boil them in six quarts of water, together with a pint of soft soap, a sufficient time to get the strength from the herbs. Put the affected part over the steam, and cover the same closely with a blanket, for fifteen or twenty minutes. Immediately after steaming take a liquid and bathe the part affected, made of half a gill of *spirits*, half an ounce of *camphor*, a large table-spoonful of *laudanum*, the *marrow* of three hogs' jaws, simmered together on embers; apply the liquid, and rub the swelling downward. Then apply a *poultice* made of one handful of *dandelion roots*, one handful of the *hearts of mullein*, and the same quantity of *catnip:* boil them in sweet milk, and thicken with wheat flour. Steam in the evening, and poultice every morning and evening until the swelling breaks. After the swelling breaks, apply a salve made of one handful of *English clover*, a lump of *rosin* as large as a walnut, half a pound of *sheep's tallow*, one handful of *bitter-sweet berries;* stew slow on embers. Apply the salve twice a day. Take an equal quantity of *red precipitate* and *loaf sugar*, with a small lump of *charcoal*, and powder them, to cleanse the sore of proud flesh. If the sinews should be contracted, take a pint bottle, fill it half full of sweet oil, then fill it with *chamomile flowers:* let it hang in the sun for three days, taking it in every evening. Rub the sinews hard with this twice every day, and heat it in with a hot iron.

It is impossible for a practitioner truly to appreciate the immediate and sovereign effect of the fomentation made use of, or rather the effect of the steam or heat arising from the combination, except they make a trial of it. I have seen the languishing sufferer, nearly worn out with excruciating pain, so suddenly relieved, the transition or change so great, that the patient suspected that a dangerous or fatal dose of opium had been administered. It not only has an astonishing effect upon the parts immediately diseased, but a correspondent or sympathetic one upon the whole system; and I have

found it equally applicable and beneficial in cases of *felons, inflammations*, and other painful diseases.

CHAPTER XXI.

VENEREAL DISEASE. (*Lues Venerea—Syphilis.*)

Description.—This is a most loathsome affection, which extends to every part of the system, and is occasioned by a specific poison, conveyed by contagion or actual contact.

Causes.—The venereal disease is supposed to arise from a specific morbid poison, which, when applied to the human body, has the power of propagating or multiplying itself, and is capable of acting both locally and constitutionally.

Dr. Steward supposes that this disease originated in the camp of Israel, as may be inferred by reading the fifth chapter of Numbers. No doubt it was first inflicted upon mankind as a curse, in consequence of departing from moral rectitude, or the law of God.

Gonorrhœa.—Symptoms.—Gonorrhœa is a discharge, resembling pus or matter, from the urethra, with heat of urine, &c., after impure coition, to which often succeeds a discharge of mucus from the urethra called a gleet, and which commences a few days after exposure. It begins with an uneasiness about the parts of generation, such as an itching in the glans penis, and a soreness and tingling sensation along the whole course of the urethra; soon after which the person perceives an appearance of whitish matter at its orifice, and also some degree of pungency upon making water.

In the course of a few days the discharge of matter will increase considerably; will assume, most probably, a greenish or yellowish hue, and will become thinner, and lose its adhesiveness; the parts will also be occupied with some degree of redness and inflammation; the stream of urine will be smaller than usual, owing to the canal being made narrower by the inflamed state of the internal membrane, and a considerable degree of pain and scalding heat will be experienced on every attempt to make water.

Where the inflammation prevails in a very high degree, it prevents the extension of the urethra, on the taking place of any erection, so that the penis is, at that time, curved downward, with great pain, which is much increased if attempted to be raised; (this is called a *chordee;*) and the stimulus occasions it often to be erected, particularly when the patient is warm in bed, and so deprives him of sleep, producing, in some cases, an involuntary emission of semen.

Chancre.—From absorption of the venereal poison, little eruptions, scabs, and ulcers arise on different parts of the head of the penis. It usually begins with an itching in the part. A small pimple, full of matter, generally arises, without much hardness, or apparent inflammation or swelling. The itching is gradually changed into pain, and is converted into an ulcer. Its base is hard, and the edges a little prominent. When it begins on the frænum, or near it, that part is very commonly destroyed, or a hole is made in it by ulceration. When the disease is more advanced, inflammation is liable to take place.

Bubo.—When the venereal poison takes its natural course, it becomes absorbed, and usually affects the glands of the groin. This complaint comes on with a pain in the groin, accompanied with some degree of hardness and swelling, and is at first about the size of a kidney bean; but, continuing to increase, it at length becomes as large as an egg, occasions the person to experience some difficulty in walking, and is attended with a pulsation and throbbing in the tumour, and a great redness of the skin. In some cases the suppuration is quickly completed; in others it goes on very slow; and in others, again, the inflammatory appearances go off without any formation of pus.

Secondary Symptoms.—Sometimes, from improper treatment or other causes, the venereal poison is taken up into the circulation, and the whole system becomes diseased. The skin, mouth, throat, tongue, nose, tonsils, palate, eyes, and head become very much diseased. Ulcers are formed, which discharge acrid, fetid matter, which is peculiarly loathsome. The matter sometimes falls on deep-seated parts, such as the tendons, ligaments, and periosteum, and occasions hard, painful swellings to arise, known by the name of nodes.

When the disease is suffered to proceed, and is not counteracted by proper remedies, the patient will, in course of time, be afflicted with severe pains, but more particularly in the night-time; his countenance will become sallow; his hair fall off; lose his appetite, strength, and flesh; rest much disturbed by night, and a small fever of a hectic kind will arise. The ulcers in the mouth and throat being likewise suffered to spread, and to occasion a caries of the bones of the palate, an opening will be made from the mouth to the nose; and the cartilages and bones of the nose being at length corroded away, this will sink to a level with the face; all which render the wretched patient an object of disgust and severe suffering, and which not unfrequently prove fatal.

Females who labour under this disease during pregnancy, communicate the poison to the child in the womb, which sometimes destroys it before it is born; at other times its effects are seen afterward, and the poor, innocent offspring must suffer for the crimes of its parent. What a curse is annexed to a promiscuous intercourse of the sexes; and yet there are some who advocate the practice, under the sanction of religion—yea, the highest holiness.

Treatment.—Mercury is now almost exclusively relied upon in some form for the cure of this disease, and yet I have to learn that it possesses any specific virtue in removing it. In the reliance of physicians upon this poison they betray their prejudice, error, and ignorance, as long experience and facts demonstrate.

Setting aside the unpleasant and injurious effects to which mercury subjects the venereal patient, there are other considerations of paramount importance for entirely dispensing with it; which is principally the fact, that *no preparation of mercury whatever*, according to the experience and observation that I have had, (and it has not been very limited,) has any power, directly or indirectly, of curing the disease in any stage of it; but, on the contrary, often exasperates, protracts the cure, and brings on the mercurial disease, which is much worse than any form of syphilis. It is frequently itself a source of cutaneous diseases, sore throats, and symptoms, which, without its baneful influence, would never have occurred

Is it not a startling fact, that this has never been discovered, with all the boasted learning and improvement of physicians? All their talents have

been engaged to ascertain whether the venereal disease can be cured without mercury; whereas they have never yet learned, it appears, that it never was cured with it.

When Dr. Alexander H. Stevens first commenced his surgical course in the university of the state of New York, I attended his lectures; and I recollect that he remarked, when speaking on the treatment of venereal disease, as follows: said he, "Gentlemen, I know not what to say to you on the use of mercury in the venereal disease; the whole medical world has been upset within a few years." He then went on to state the experiments which had been tried in Europe, in the military hospitals, which went to establish the fact, that, in an equal number of venereal patients treated *with* and *without* mercury, those recovered the most speedily who did not submit to a course of mercury, and were treated merely by cleanliness, rest, and abstinence, with the most simple and mild dressings.

"When I was an articled student at St. Bartholomew's hospital," says Dr. Cooper, "most of the venereal patients in that establishment were seen with their ulcerated tongues hanging out of their mouths, their faces prodigiously swelled, and their saliva flowing out in streams. The wards were not sufficiently ventilated, and the stench was so great that the places well deserved the appellation of *foul*. Yet, notwithstanding mercury was thus *pushed*, (as the favourite expression was,) it was then common to see many patients suffer the most dreadful mutilations, in consequence of sloughing ulcers of the penis; many unfortunate individuals, whose noses and palates were lost; and others who were afflicted with nodes and dreadful phagedenic sores."

Says Dr. S. D. Broughton, in the London Medical Gazette, "Usually a mine of prejudice has been ready to explode when any *anti-mercurial* doctrines have been broached; and, in attempting to disturb theories sanctioned by age, and rendered orthodox from ancestorial experience, the curse of modern heresy often attaches itself to the avower of that which many regard rather in the light of rash innovation than improvement.

I aver that mercurial saturation tends to the destruction of mucous membranes, the removal, by morbid absorption, of soft parts, and the disorganization of the osseous substance. The *mind* itself has suffered, the constitution received a baneful impression, and pulmonary consumption has not unfrequently terminated the patient's earthly career, when the system has undergone mercurial saturation; while the wretched victim of imbecility or imprudent rashness has been reported to have died of another disease.

This propensity of giving mercury I remember once to have heard very satisfactorily accounted for in a medical debating society, by a candid avowal that, if the anti-mercurial mania continued to spread, '*it would be ruin to the apothecaries and general practitioners.*' Therefore the inference drawn from this *liberal* sentiment was, that it is better to be on the SAFE side, and not to hazard the adoption of modern heretical opinions against the '*wisdom and experience of our ancestors.*'

The extent and injury to the soft and bony parts of the system, arising from the action of mercury, is far more dreadful than any primary or secondary effects of venereal poison.

That mercury never was a *specific* against the venereal poison; for relapses were constantly occurring during its fullest operation; nor possessed any virtue in the cure of the disease; and that the creed so long believed in, (to the ruin of the health of multitudes, through mercurial salivation,) of its indispensability toward the cure, and the destruction of the patient if omitted,

is utterly false and groundless; are facts which can admit of immediate, every-day demonstration, in the many thousands of the healthiest British soldiers, *who have been easily, effectually, and permanently cured of every stage of the venereal disease, without ever having taken one particle of mercury.*

The bigoted adherence to a belief so false and so universal, in which the wisest and most philosophic of our profession blindly participate, will be quoted in after ages as a national reproach;* and, as it has indeed already done, will, it is to be feared, go far in destroying our confidence in all medical dogmata, or any doctrines whatever."

Treatment of Gonorrhœa.—Having shown the inutility, and, in some degree, the injury, of mercury, or the common practice, in the venereal disease, I shall now lay down such a course of treatment as I have found speedily to remove the disease; and, in justice to the efforts of nature, I must add, that gonorrhœa, as well as other venereal affections, are sometimes spontaneously cured, and very generally by a simple and mild treatment, such as cleanliness, simple dressings, diet, and regulation of the secretions. At the same time, by the use of more active means, the disorder may be sooner eradicated.

The first medicine to be administered in this state of the disease is, the *diuretic drops;* this soon allays the irritation, scalding of the urine, &c. After the inflammatory symptoms have subsided, should there remain any gleet, some stimulating injection may be used; for example, take ten grains of *white vitriol*, pulverized; twenty grains of *borax*, pulverized; a tea-spoonful of *elm bark*, pulverized: add half a pint of warm water, and inject two or three times a day. If this does not remove it, take *cubebs*, pulverized, one ounce; best Holland gin, one pint; spearmint, one ounce: mix, and let it stand to digest: then take *balsam of copaiva*, two ounces; *oil of wintergreen*, one drachm: mix each of the above preparations, and give two tea-spoonsful, clear, three times a day, at bed-time in particular. Also inject a weak solution of *sal soda* two or three times a day. Dr. Snow, of Boston, who has had much experience in this complaint, makes use of the latter preparations. As a general rule, give the *compound powder of mandrake* twice a week: avoid all stimulants in eating and drinking. Should the skin of the prepuce retract, and become inflamed and swollen, an *elm poultice* may be applied, and also the *brown ointment*. Local and general bathing is very useful. If chordee attend the complaint, take an anodyne at bed-time. After this, if there still be a gleet, inject twice a day with the following: Nitrate of silver, eight grains; water, two ounces: mix. Gradually increase the strength.

Treatment of Chancre.—The treatment of chancre must be very similar to that of an ordinary ulcer. The inflammation must first be reduced, by applying the *elm bark poultice;* also the *brown ointment* on a pledget of lint. When the inflammation has subsided, apply the *black salve;* if the ulcer does not heal under this dressing, let it be sprinkled with the powdered *blood-root*, daily; and subsequently, if it does not heal, with *caustic*. No irritation is excited by these powders; but they change the character of the sore usually in twenty-four hours, causing it rapidly to heal. Every time the sore is dressed it should be well cleansed with a mixture of Castile soap, soft water, and spirits; any collection of matter in the contiguous parts must be removed with the same.

* This time has already arrived; and this *bigoted adherence to a belief so false* in the use of mercury I now quote, and pronounce, with thousands of others, "*a national reproach.*"

I formerly made use of a wash, prepared by adding ten grains of corrosive sublimate to ten ounces of borax or lime water. I attended a female nearly destroyed by a venereal ulcer, which this, applied on lint, cured in three weeks. But instead of this mineral preparation (called the *yellow wash*), I now use to better effect the *vegetable caustic*.

Chancres are often attended with that stage of the disease called phymosis, or paraphymosis, which renders it difficult to make any applications to the ulcers. When this occurs, *poultices*, *cooling lotions*, and other means must be applied to remove the inflammation, before anything can be done to the chancres. Sometimes it is necessary to apply them a number of days before the swelling subsides; but there is no necessity of dividing the prepuce, as surgeons recommend, as it only requires a little time to accomplish that for which the operation is recommended. In addition to these local applications, it will be necessary to attend to the constitution. The *mandrake* must be given as a purgative; and the *alterative syrup* may be freely taken, with the addition of *hydriodate of potash*, in the proportion of half an ounce to a porter bottleful of the syrup.

Treatment of Bubo.—When the poison becomes absorbed, and affects the inguinal glands, particularly as before stated, it is termed a bubo, and our first object should be to discuss or disperse it; to effect which apply the *discutient ointment* three or four times a day, rubbing it in well before the fire; after which a *poultice* may be made, by simmering the *cicuta leaves* in water, and, when soft, the *slippery elm bark* to be stirred in, to form a poultice; it may be used constantly, but night is the most convenient time. The patient should be pretty freely purged. Should this attempt to discuss the venereal tumour or bubo fail, and should the swelling and inflammation increase, suppuration will probably succeed, which must be promoted, by applying the following poultice: Take the root of *wild carrot*, (daucus sylvestris,) bruise, and simmer in milk; then stir in the elm bark: or our common *poultice* may be applied to the part, to be secured by proper bandages.

When symptoms of suppuration appear, which will be known by the subsidence of pain and inflammation, with softness and fluctuation of the bubo, a small opening may be made to let out the matter; or it may be left a short time, to open spontaneously. After it has discharged freely, the poultice may be laid aside, and the *black plaster* or *salve* substituted. It should be washed with a little soap water and spirits, and, if it does not heal kindly, treat it as any other ulcer. *See Ulcers.*

Constitutional Affection—Lues Venerea.—If, from neglect, improper treatment, peculiar temperament, or any other cause, the venereal poison is suffered to be absorbed and taken into the circulating mass, and thus contaminate and affect the whole system, our treatment must be varied, and adapted to this melancholy stage of the complaint.

Mercury is given in this as well as other stages of the disease, but it does not cure it. The investigations made in the military hospitals of Europe, and in the hospital at Hamburgh, by Dr. Trecke, show conclusively that *secondary symptoms* can be cured without mercury much better than with it: the experiments were made on five thousand cases, and those who took no mercury did the best. In the treatment of this form of the disease the object should be to eradicate the poison from the system, which must be by the excretions of the system. The patient may take the *mandrake physic* once or twice a week; and the *alterative syrup*, with the *potash*, as in *bubo*

I have tried every preparation used by modern physicians, with most of the nostrums now so highly extolled, such as *Swaim's panacea*, and other preparations; and, after repeated and comparative trials for years, I find that the above syrup by far exceeds the whole of them. If there is any chance of recovery for the patient, or the disease is within the control of medicines, with proper agents accompanying it, this syrup will prove effectual. It requires to be given a length of time, in certain cases, before it has the desired effect. I know not the modus operandi, or how it acts on the system, nor is this of much consequence; the effect of it is enough for us to know; but it appears pretty evident that it must change the secretions, or eliminate the morbific matter by the skin, kidneys, bowels, or intestines, although it has very little sensible effect upon any of these organs.

In very obstinate cases fifteen or twenty bottles of syrup should be taken.

Should the ulcers be very intractable and unyielding, they must be occasionally touched with our *common vegatable caustic*, the same as in other ulcers. A decoction of the *stillingia sylvatica*, called *yaw weed*, may be freely taken during the day, or sufficient to purge.

This course, with me, has been invariably successful, even in those desperate cases where they have been abandoned, or given up as incurable, by hospital surgeons and others; but much time and patience is often required to effect a cure in the worst variety of the complaint.

This treatment is also very beneficial in mercurial affections, which are usually connected with the venereal disease.

In concluding this chapter on the venereal disease I have to remark, that there is one diagnostic symptom, which will enable the practitioner always to detect the real character of the venereal ulcer: it is the *peculiar fetid effluvia* or *stench* which arises from it; it is different from that arising from any and every other complaint.

Treatment of Stricture.—When there is an obstruction in the urine, or it is discharged in a small stream, it shows that a stricture must exist in the urinary canal; to cure this, inject a solution of *sal soda* two or three times a day, and introduce a bougie, moistened with the *brown* and *discutient ointments*, daily: commence with a small one, and gradually increase the size; continue it for fifteen minutes each time.

I have found the following preparation a very valuable injection for stricture in the urethra:—Take two ounces each of the following articles: *white oak bark*, *witch hazel bark*, and *sumach berries*, bruised; add two quarts of water, and boil down to a pint; strain, and add one scruple of *nitrate of silver*. Inject three or four drachms of this liquid twice a day. This is also a superior wash for venereal sores, and ulcers of all kinds.

Nodes.—Mrs. B. was relieved of a severe pain of the head, (arising, I suppose, from venereal nodes,) after many applications had been tried, such as blisters, capsicum, fomentations, and other heating applications, by applying acetate or sugar of lead, and vinegar, cold.

Another person was cured of an inflammation of the brain by the same application. Would not this be good for all inflammatory affections of the head? I have found that cold applications will often remove pain in the head, while hot or stimulating applications are of no avail.

CHAPTER XXII.

INFLAMMATION OF THE EYE. (*Ophthalmia.*)

Symptoms.—Sharp pain confined to a point, as if occasioned by the presence of extraneous matter; great heat and redness; the parts swell, and the vessels of the eye not only increase in size and become turgid, but appear more numerous than in the natural state: great pain upon the least motion of the eyeball; morbid sensibility to light; effusion of tears of an excoriating quality. If the inflammation run high, a febrile disposition attends.

After a longer or shorter continuance, these appearances gradually abate, or entirely cease; but in some cases, although the patient is left free from pain, tumour, and symptomatic fever, yet the suffused redness of the eye and the external marks of inflammation still remain, and long continue to exist after every other symptom has subsided.

During the continuance of the inflammation small ulcers are often formed upon the cornea, and little collections of matter are sometimes deposited, which frequently harden into white, opaque specks, and either partially or totally obstruct the entrance of light.

The ophthalmia tarsi consists in a chronic inflammation (frequently with ulceration) of the sebaceous glands, which are situated in the tarsus or edges of the eyelids. It is often productive of much irritation, and, when severe, occasions the destruction of the eyelashes. It is a scrofulous affection.

Causes—External injuries; as blows, contusions, wounds of the eyes; extraneous bodies, of an irritating nature, introduced under the eyelids; exposure to bleak winds and cold, too free a use of vinous and spirituous liquors, suppression of accustomed discharges, long exposure to strong light, a fixed attention to some minute object, and inversion of the eyelids. It is symptomatic of certain other diseases, as measles, small-pox, scurvy, scrofula, and syphilis. Contagion.

Treatment.—The *first* indication to be fulfilled in the treatment of ophthalmia is, to remove all extraneous substances from the eye, or whatever may prove a source of irritation.

Second. To reduce the inflammation as speedily as possible.

The first indication, viz., that of removing foreign bodies from the eye, is very important; for, so long as they continue, the inflammation will be kept up. Sometimes it continues for months, when something has been found in the eye which has been the source of all the mischief. A magnet is very good. A physician in England removed a piece of iron from the eye with a magnet, which was the means of introducing him into practice.

The smallest particle, lodging in the eye, from its irritable and delicate structure, produces great pain, swelling, inflammation, and inability to move the lids. There is a preternatural secretion of tears, which often removes the exciting cause; but should not this be the case, the lids must be opened with the fingers, and the patient rotate the eye in different directions, especially to the opposite side to that wherein the extraneous body appears to lie; and, when the substance is brought in view, it may readily be removed by the end of a probe or bodkin covered with a silk handkerchief of a close texture, or a small roll of fine linen will answer the purpose. Should one of the lashes fall into the eye, it may be removed in the same way. If the foreign

bodies be very small, either dust or sand, the mucilage of *slippery elm bark* should be introduced, by directing the person to throw his head as far back as possible, and then pour, or inject with a syringe, a quantity of the clear mucilage into the inner corner or canthus of the eye at the same time that he is directed to wink or move it in different directions. The dust or sand will, in this manner, adhere to the mucilage, and will be washed out; the mucilage will also diminish the inflammation, by its soothing and cooling properties.

It is sometimes the case that extraneous particles are insinuated under the lids and adhere to them: in these cases the lid should be everted, or turned inside out, the particle brought in sight, and removed, as before directed.

Sometimes particles of metal, or insects, get imbedded into the coat of the eye. A silver wire, beat thin and fixed into a handle, will be convenient to remove them. A hog's bristle, bent semicircular, is very good.

When dust or any small particles that cannot be extracted get into the eye, put an eye-stone in it, which causes no pain, comes out easily, and often removes the offending matter. A poultice of elm bark may be put over the eye. A young man was lately very essentially benefited by this means.

Sometimes foreign substances penetrate the conjunctiva, and project a little, causing much pain. They may be removed by a small pair of tweezers.

It is very common in cities, and in factories where much iron is used, for scales, or small pieces of it, or steel, to penetrate into the cornea, and become so imbedded that they cannot be dislodged without touching them with a sharp instrument.

We very often have persons apply to us in this situation; and it requires some skill to take them out. The method which I adopt, and which is very effectual, is as follows: I seat myself directly before the patient, and direct an assistant to hold his head as steadily as possible. I then press the left fore-finger on the upper lid of the eye, and the left thumb upon the lower lid, and extend them sufficiently open to discover the object; and, by the by, the scale is often scarcely perceptible. On one or two occasions the patient had applied to a physician, who said there was no substance in the eye. But in every case, by looking very closely, a minute dark speck could be seen on the cornea. When the practitioner discovers this, and everything has been adjusted, he will direct the person to look steadily at some object in that direction which brings the substance fairly into view. At the same time he will press with his fingers sufficiently to keep the ball of the eye from turning; while at the same moment he will, with a common thumb or abscess lancet, carry the point directly to the particle or body, and carry it outward. In this manner it can be easily taken out. Sometimes it will adhere to the point of the lancet; at other times it will fall upon the eye, and is washed out by the tears; and occasionally it is removed without discovering it. After the removal of the body a minute speck will be seen where it has been imbedded, which is liable to deceive the physician. The only sure criterion to ascertain whether or not it has been removed, is, the subsidence of the pricking sensation, or the removal of the source of irritation; and this will sometimes take place immediately, at other times not till several hours afterward.

When pieces of lime get into the eye, as many as possible must be removed in the same manner as has been directed for the removal of other foreign agents; and such as cannot be thus removed must be washed out by the mucilage of slippery elm bark. In this manner we have succeeded in every case of the kind, and they have been numerous.

After the first indication has been fulfilled, viz., to remove all extraneous bodies from the eye, our next one will be to subdue the inflammation; and the first application to be made may be locally.

1st. *Fomentations.*—If the pain be very severe, let the eye be fomented with a decoction of *stramonium leaves*, simmered in *spirits*. The eye or eyes may be washed with it, and the leaves then bound on, and often renewed. I have known this to give relief when all other means failed. With the addition of a little laudanum and water applied to the eyes as a wash, it soon relieved and cured one case, where there was excessive pain and inflammation, after having used all my usual prescriptions.

2d. *Cooling Washes.*—After this fomentation has been used a while, the *cooling* or *refrigerant wash* may be applied, which consists of one drachm of pulverized borax, to which may be added eight ounces of boiling rain or spring water, and afterward strained or filtered. After the eyes have been washed with this, if the inflammation is slight, the use of a more *stimulating eye-water* may be sufficient to remove it; and, when first used, to be a little diluted. Should it, however, continue, after the use of this a short time apply the following wash, called laurus eye-water: make a strong mucilage, by immersing the *pith* of *sassafras* in *rose water;* after which let the eyes be washed with this frequently.

A patient applied to me with excessive irritation of the eyes, occasioned by the use of brandy and opium, taken habitually for a length of time. All our ordinary means proved unavailing, in consequence of the continued use of the above stimulants. I then gave the dried stramonium leaves, and directed him to simmer them in equal parts of water and spirits, and apply it to the eyes in the form of a poultice. Secondly, I directed him to wash his eyes occasionally with equal parts of the tincture of opium and water. This treatment produced an immediate amendment, and cured the patient in a very short period. The irritation was so great that it was difficult to convince the patient that he had no foreign substance in his eye.

Henbane plant, (hyoscyamus,) applied to the eye in the form of a poultice, is an excellent remedy for inflammation.

3d. *Poultices.*—Of all the applications which can be employed to reduce inflammation, there is none so powerful, so strikingly effectual and sovereign, as a poultice made of the *slippery elm bark*. The *superfine flour* of it should be mixed with equal parts of *milk* and *water*, and applied *tepid*, and next to the skin. It should not be placed between linen, if it can be kept on without: in infants and children, however, it is sometimes necessary to enclose it, in order to keep it upon the eyes; when this *is necessary*, it should be made very thin. If the inflammation is very acute, it may be kept on during the day and night, otherwise the washes may be applied during the day and the *poultice* at night. This does more to remove the pain and inflammation than any other means besides. There is not the least danger arising from its use, as some, entirely ignorant of its effects, have intimated might be the case; or rather this has been their charge against poultices in general; and was this, that is here recommended, no better than those usually employed, such charge would be very valid or properly made; but the bark, applied as here directed, is exceedingly valuable, surpassing every other application; and no injurious effects arise from it in any case.

4th. *Stimulating Eye-water or Wash.*—When the inflammation has partially subsided, an eye-water or wash that is a little stimulating to the absorbents may be applied to the eye: for this purpose let the *stimulating eye-water* be applied two or three times a day, to be diluted with a little rain

water, and the strength of it gradually increased, as the eyes will bear. If it increases the inflammation, let it be omitted. A wash made of *salt* and *whit · vitriol*, a few grains of each to a little rain water, is very good, and may frequently be applied to the eye through the day. If it smarts, dilute it.

5th. *Equalize the Circulation.*—When the pathology of this disease is well understood, (which I am persuaded is not the case in this day,) the method of treating it will be found simple, easy, and very effectual: people will not then have their eyes so often destroyed, as at the present time, by improper treatment. When the cause is well understood, the treatment will be necessarily right; and I have found that, in nine cases out of ten, ophthalmia of all kinds arises from an unequal circulation of blood. It recedes in consequence of cold from the surface and extremities, and is thrown in an undue quantity upon the eyes, which, with the morbific agents contained in the circulation, is the great cause of inflammation of these organs. Ask the patient if his feet have not been, and are not, habitually cold, while his head and eyes are hot: he will answer in the affirmative. Or place one hand upon the feet, the other upon the forehead, and you will discover that, while the former (the feet) are *cold*, the forehead is *hot*, i. e., the temperature, instead of being regular and uniform, is *unequal* and diametrically opposite. Hence the indication of cure must be obvious to the meanest capacity, which consists in *recalling*, not *abstracting*, the blood from the eyes and head back again to its original channels, which is no sooner done than inflammatory symptoms subside; and this is effected by means so simple, that, except a practitioner possesses a good share of candour and honesty, combined with discernment and some physiological knowledge, he will reject it, from errors previously imbibed.

One great and principal means by which to equalize the circulation is, the application of heat to the surface and extremities. *Diaphoretics* may be given to excite perspiration or a determination to the skin, and the *feet* should be repeatedly *bathed* in *warm ley water*, to return the blood, or to promote a natural warmth and circulation; and it is usually the case that in the very act of this process the patient experiences great relief; the temporal arteries cease to beat so violently, the pain in the head subsides, and the irritation of the eyes are lessened. After the feet are bathed, *mustard plasters* may be applied, and kept on, particularly at night. The vapour bath may be used, to promote gentle perspiration, in cases where internal medicines prove insufficient, or where it is excited with difficulty; and perspiration should be aided also by warm diluent drinks. The skin must be kept moist while any inflammation remains.

6th. *Rest and Quietude.*—The patient should keep in his room as much as possible, as exercise and exposure to the air or cold are apt to increase the inflammation. The room should be a little darkened, and but little, as the act of keeping the eyes entirely from the light will prove injurious, particularly when they first begin to be exposed to it; and they ought gradually to be accustomed to a moderate degree of it.

7th. *Anodynes.*—Where the patient is very restless and wakeful, a portion of the *diaphoretic powders* may be given at bed-time.

8th. *Purgatives.*—Physic should be given to the patient two or three times a week, as it contributes very much to lessen the inflammation, by lessening the quantity of the circulating mass and equalizing the circulation. Our *common purgative* may be given, and *senna*, *manna*, and *cream of tartar* occasionally substituted. When the eyes adhere much together, from a

secretion of matter which takes place most commonly in the morning, they should be washed with a little Castile soap and water; when they are very irritable, a little milk and water may be sufficient; but the soap should be used in this case in preference, if the patient can bear it: I have found the daily use of it, particularly in purulent ophthalmia, exceedingly beneficial. It not only cleanses the eyes of all viscid secretions, but gives them tone and energy, by stimulating the absorbents to a healthy action.

Eye-water.—Take garden celandine, green, bruise it, and rose water; to one ounce add half a pint of rose water; if too strong, dilute.

Film.—An ointment of celandine, for the cure of sore eyes, soon cured a very bad case.

Fleshy Excrescence of the Eyes.—Pulverized blood-root, fine, applied daily with a wet rag, cured a case.

Specks on the Cornea. (*M. Dupuytren.*)—The insufflation of the subjoined powder on the eye, repeated morning and evening, by means of a quill, while the eyelids are kept separated: "Oxidi zinci imp. præp.; sacchari candi albi; submuriate mercury, aa." This I have never used.

"The eyes should neither be washed nor rubbed after the insufflation. When there does not exist any disease of the eyelids nor inflammation of the conjunctiva, the insufflation of the powder generally suffices to resolve the specks. Those which are recent and slight are completely dissipated in a few weeks by the insufflations. The specks that have existed longer, that are thicker and broader, usually give way in a month or six weeks; and specks that occupied almost the whole cornea, covering the pupil, and entirely intercepting the passage of light into the eye, have been frequently seen to disappear completely in the course of a few months."

Weak Eyes.—Of all the remedies for weak eyes, bathing them in pure cold water is the best. Bathe or sponge the brows, temples, head, ears, neck, and upper lip, these being closely connected with the optic nerve. The sponge should be dipped frequently into cold water and applied; after which rub all the parts briskly with a dry towel: repeat this two or three or more times a day; this practice strengthens the eyes. One drop of sweet oil, put into the eye, is also recommended.

Chronic Ophthalmia, and Ophthalmic Tarsi.—When acute ophthalmia or inflammation of the eyes has been properly treated, there is very little danger of its running into a chronic form. But when patients have been freely bled, blistered, mercurialized, and reduced, as they now are, chronic inflammation will supervene, or ulceration will follow, which will destroy all vision or disorganize the eyes, as may be seen daily where such practice has been followed. When we are called to treat chronic ophthalmia, although we cannot prevent the mischief which has been done, we may remedy it in part, and perhaps wholly: first, we must make use of the same means to subdue it as are recommended for the acute stage of the disorder; if they proved ineffectual, which will seldom be the case, some variation in practice will be called for. Additional, or somewhat different, means must be taken to divert the blood from the head, to equalize the circulation, and to excite a healthy action in the eyes.

First, *Emetics.*—Emetics sometimes have an excellent effect where the disease has become stationary, or where chronic inflammation exists: about two a week should be given, and a purgative administered as often. The fact, that ophthalmia depends upon gastric irritation, is often overlooked by the practitioner; even though it does not depend upon a morbid state of the stomach

yet the shock given by the emetic to the head and capillary system exerts a salutary influence on the eyes, by lessening subacute inflammation, and giving them tone.

Says Abernethy, "Most of even our local diseases originate in a bad state of the stomach, a truth which cannot be too often impressed upon those who speak of the treatment of purulent ophthalmia." He traces nearly all the maladies which affect the *eye* to this fertile cause of human suffering, and tells the following amusing story, in illustration of the vulgar errors on the subject: we quote from the report of his lectures in the *Lancet*: "A lady and gentleman brought their child to me with inflamed eyes; the pupils could hardly be distinguished; there were ulcers on the cornea, and it was very much clouded. They said, 'Sir, we are going out of town, and thought we would ask your opinion of our child's eyes; he has been under the care of several of the most eminent surgeons, and is getting rather worse than better.' I said, 'Do you expect that I will prescribe an eye-water, or an eye-salve, and so on? I tell you that I am persuaded that the cause of irritable eyes is a disordered state of the stomach and bowels.' I desired the lad to put out his tongue, and it was very furred and dirty indeed. I told them that they must pay great attention to the child's diet, to the regulation of his bowels, to take exercise in the open air, and so on. 'Oh!' they said, 'if that is all the advice you can give, we must wish you good morning;' so they paid me a guinea, and off they went. They were going into Devonshire; when they were about seventy miles from the town the child was seized with a diarrhœa, which caused them to stop on the road, and in a day or two the child's eyes became much better. They now began to think that there was some truth in what had been told about a disordered state of the stomach and bowels, and away they came again toward town, after having travelled above seventy miles, to hear something more about this matter, which, if they had had a little patience, they would have heard at first in a few minutes."

I have found that in the chronic, and particularly in the purulent, ophthalmia the inflammation depends in some degree upon a morbid or vitiated state of the blood; and I have, therefore, administered alteratives, particularly in the purulent and scrofulous, and for this purpose the *alterative syrup* should be freely given. The *eye balsam* or *brown ointment* is exceedingly efficacious in chronic affections of the eye, particularly the lids; a little to be rubbed on night and morning.

If the patient complains of any pain or heat about the eyes and forehead, and which is not easily removed, let him be directed to immerse the crown of his head once or twice successively in spring or rain water that has just been drawn: this will have a tendency to abstract the remaining heat from the parts, by the evaporation which follows; while at the same time it diverts the blood from the head to the other parts, and gives tone and energy to the absorbents. Should the patient feel any worse after this operation, or after the use of any other medicine, let it be discontinued; for it is well known that a medicine that will cure nineteen persons, may disagree with the twentieth.

Much benefit is derived, in chronic and purulent ophthalmia, from exercise in the open air, a change of diet, and from travelling.

The purulent ophthalmia, it must be remembered, is contagious; and, where a member of a family is afflicted with it, great care must be taken that it is not communicated to others by washing in the same basin, wiping on the same towel, or letting the matter from the eyes be conveyed in any way to those with whom he associates.

Ophthalmia Tarsi is a troublesome species of ophthalmia, which affects the lids of the eye, and appears to be occasioned by a scrofulous state of the system. It is situated in the sebaceous glands, and is often productive of much inflammation, is very inveterate, and sometimes destroys the eyelashes. Apply the *brown ointment*.

Mrs. Boyd states that burnt alum and cream, applied to the eyes, cured her of a scrofulous ophthalmia.

A person lately applied to me, who came a distance of nearly two hundred miles, to be attended for this complaint. The lids of the eye were four times the thickness that they were in their natural state, and there was a constant corrosive discharge from the eyes, which extensively excoriated the cheeks. She had laboured under the complaint for eight years, and was rendered completely miserable by it. The whole routine of our common treatment only afforded partial relief. The flowers of sulphur, enclosed in a bag, and placed over the eyes at night, she thought, rendered her the greatest service.

After trying every medicine that afforded any prospect of a cure, I was about to abandon the case as incurable. But it occurred to me, on my last visit, that one of the preparations (tincture of capsicum annum) which I had before directed her to use, and which she said had aggravated her eyes, might still be beneficial, if used in a weak or diluted state. I accordingly took about a drachm of this stimulating liquid, added to it an ounce of rain water, and directed her to apply it to the eyes two or three times a day. The next time that I saw her I found a remarkable change for the better. This diluted tincture of *capsicum* or *Cayenne pepper* checked the discharge, reduced the swelling, inflammation, and pain, and, in a word, operated like a charm, and the old lady soon returned home nearly well. Of the modus operandi, or the manner in which this article acts, affording relief in such cases, is not easy to determine. The benefit is probably derived from the new action excited, or from the stimulus given to the absorbents, which causes them to perform their office, and thus removes the complaint.

The patient must be directed to take purgatives occasionally, and such medicines as have a tendency to eradicate any taint of the system; and, above all, he should enjoy the benefit of pure air, and every morning the eyes should be well cleansed and washed with good *Castile soap* and water.

We have had, at our institution, a very extensive practice in various diseases of the eye; and, for the success of the treatment here laid down, we can appeal to the numerous patients we have attended. We have had cases so severe that they have been abandoned by other physicians, after having been exceedingly injured by mercury, bleeding, blistering, scarifications, &c. They have been led to our institution blind, and we have, after a length of time, (for under the best treatment such cases are very tedious,) succeeded in restoring them to sight. Those who persevere in this plan of treatment may safely hold out a prospect of cure to the patient, if vision has not been completely lost or the eye disorganized by inflammation.

I might here give a vast number of cases in illustration of this practice, but neither time nor space will permit. One case, however, occurs to me, which I will briefly give, more particularly to demonstrate the effects of the present practice of medicine.

A Captain Allen, from Lockport, N. Y., residing a distance of 400 miles from this city, applied to me to be treated for the Egyptian or purulent ophthalmia, which has been endemical in the western states.

The account and treatment which he gave of his disease were most afflicting and appalling; and illustrates, more strikingly than words or assertions,

the lamentable practice of medicine in this day, and as clearly illustrates the superiority of the reformed over the mineral practice. He informed me that, when he was first attacked with the disease, his general health was excellent, he was strong and athletic, and enjoying a good constitution. He was seized with the usual symptoms of acute ophthalmia, with severe pain, swelling, and inflammation in the eyes, with a great discharge from them. He immediately placed himself under the care of a person who was a professed oculist, and who had taken extraordinary pains to acquire all the medical knowledge possible, particularly as relates to the eye.*

This physician began in the usual method, to bleed him most copiously, and repeated this operation till he was so far reduced that he was confined to his bed. Pint after pint, and quart after quart was taken from his arm and head, by cupping and leeching.

He was bled twenty or thirty times in the course of two or three months; during this time he was purged as freely, by taking several pounds of salts. In addition to this he was tortured by the repeated and continued application of blisters. Not only so: his whole system was completely contaminated and poisoned by large portions of mercury: the water or saliva flowed copiously from his mouth, teeth loose, gums swelled, breath horrid, debility excessive, and rapidly sinking. This was not all; as the course did not have the desired effect, he must follow the rule of Dr. Sangrado, and stick to the principles of the book. He now applied the most irritating applications to the eye, everted the lids, made incisions in them with his lancet, and abstracted more blood from a part already irritated and inflamed.

Again; *blue vitriol* was next applied, and he was farther tormented by corrosive applications. He was suffered to eat little or nothing during the whole time, which produced nearly a state of starvation; and his room was rendered a complete dungeon, by excluding all light. As he grew worse under this, two or three other physicians were called in consultation; but, as a matter of course, no change, not a single new idea on the nature or treatment of his complaint. *The principles of the book must be adhered to*, and a similar course of treatment was directed to be continued. The man was now in a most deplorable state; pus or matter streaming from his eyes, totally blind, and an abscess formed on one eye, so extensive as to let out the humours and completely disorganize it; and in the other but a little vision left.

While thus distracted with pain, with the most horrid sufferings, and with a constitution broken, ruined, and sinking very rapidly, a thought struck him, for the first time, that the treatment of his physicians was murdering him. He therefore discharged them, and from that *very* time he began to grow a little better. He gradually let light into the room, and he soon rode out in a carriage, from which he derived great benefit. After a while the acute inflammation ceased, and he was left with a shattered constitution and with blindness.

It was in this state that he was led to our institution; and it would be interesting could I give a representation of this man's eyes. I can only com

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* He had attended lectures, or received instruction from the Eye Infirmary in this city, which claims uncommon skill in treating diseases of the eye, and which has acquired considerable notoriety, but with what propriety I shall leave the public to decide. A sense of duty constrains me to state, that I have heard of, and seen, numerous cases which have been exceedingly injured, but I know not of any cures performed or any benefit derived.

A person who has attended at the place, or infirmary alluded to, informs me that scores of *sore eyes* have remained under their treatment for a year or two, without receiving any benefit.

pare them to two bad ulcers, from which matter is constantly issuing, attended with pain, swelling, inflammation, and disorganization. Like other cases of ophthalmia, the extremities were cold, and had been so during the whole course of the complaint, while the head was very hot and painful. The digestive functions were exceedingly impaired, great debility, and mind very much depressed. It was in this state that we commenced treating his complaint. He had already asked the opinion of a noted surgeon of this city, who gave him no encouragement: it appeared to me that little or no benefit could be afforded, farther than to give temporary relief; but, by pursuing the course already laid down, an improvement was soon manifest. The applications checked the discharge of pus from his eyes in a very short time; the inflammation and pain began to subside; the constant heat which he had for such a length of time was removed; the warmth returned in the extremities; the ulcerated state of his eyes was removed, and they assumed their former globular and healthy appearance. The fungous flesh that lined the eyelids, and which proved a constant source of irritation, was likewise removed, and in a short time every symptom grew more and more favourable; and in the course of three months, although it appeared that all vision was destroyed, he was able to walk the streets alone, and could distinguish the different signs upon the stores; a circumstance which was almost incredible to all those acquainted with his situation. His general health became good; he recovered his former plethoric and robust state of the system, and he has ever since transacted business.

For several years, and ever since, he has almost made it a business to give a history of his disease, and the treatment; and to recommend to us every person labouring under a similar complaint, for which we feel under particular obligations.

Mr. Coleman, late editor of the Evening Post, stated, that for three months he suffered most excruciatingly from the treatment of his physicians for an inflammation of his eyes. He was bled, blistered, cupped, reduced, &c., till he was under the necessity of discontinuing their applications; when, by the advice of a friend, he washed his eyes with the water in which potatoes were boiled, and he immediately began to recover, and in a short time was well! A large library of books could be made of such cases

DIET.—Avoid everything heating.

CATARACT.—The cataract is an opaque state of the crystalline humour, or of its capsule, by which the rays of light are obstructed in their passage to the retina, and blindness is the consequence. By looking through the pupil deep, a cloudy or coloured coat is seen.

TREATMENT.—This disease is rarely cured. Stimulating applications may be applied externally, and emetics, cathartics, and alteratives internally. Cases have been cured, it is stated, by keeping up a discharge back of the neck, by an issue, or by irritating applications. Salt water bath, with friction, is very good. Purge once a week, or oftener; and abstain from all stimulating food and drink. Apply tincture of garden *celandine* to the eye.

An operation is most generally performed for the disease; but in almost every case it only affords temporary relief, and scarcely even this. Not only so: in most cases it is apt to bring on inflammation, suppuration, and disorganization, both to the eye operated upon, and the remaining sound one. The act of running an instrument into the eye, and wounding it, to cure a disease, seems neither reasonable nor philosophical. I will not, however, take it upon myself to say, that the experiment should never be tried; but I

deem it very questionable whether it is ever justifiable; at any rate, the patient should be apprized of the danger and uncertainty of the operation; he should be told that, if the vision of one eye remains, he will be in danger of losing it by the operation, as well as in danger of losing the natural appearance of the eye or eyeball on which such operation is performed. He should be told the remarks of a celebrated operator, that he had spoiled a hatful of eyes before he had operated with the least degree of success. He ought, I think, rather to have said that, even after he had ruined a hatful of eyes, he was still unable to *cure* the disease.

Since writing the above a lady of this city, Mrs. Avery, informs me that she submitted to two operations for the cataract (the first *depression*, the second *couching*) without deriving the least benefit; but, on the contrary, it nearly destroyed her life: and they were performed, too, by the physicians of the *New York Eye Infirmary*, who are considered the best acquainted with diseases of the eye. In this case they had an excellent opportunity of testing the merit of this operation. After depressing it, she states that she was confined to a dark room for the space of thirty-one days; was fed on mercury (to use her own expression) and salts every day; was bled, cupped, and leeched, until she was exceedingly reduced. This not proving effectual, in one month after she submitted to the operation of *extraction*, and underwent the same subsequent treatment; which, with the low diet, nearly destroyed her. Her eye *collapsed*, the pain *horrid*, teeth loose and rotten, strength and flesh gone, general health about ruined, and, finally, such debility followed that she was thrown into convulsions.

Now, I will not comment upon this tragedy or treatment, but merely ask the reader, if a "botanical physician or medical reformer" should be guilty of such mal-practice, whether he would not be indicted and tried as a criminal? Yet all this passes current, and as scientific and learned, because it is popular, and sanctioned by custom and great names!

Mr. T. Williams, of this city, underwent the most dreadful sufferings, in consequence of an operation performed of the same kind. So excruciating was the pain during the operation, that his shirt was drenched with perspiration; and, after all, he was still left blind.

Since writing the preceding a gentleman informs me that a physician in Cincinnati ruined the eyes of his brother by the same operation.

Hundreds of other cases of the same nature might be mentioned.

Amaurosis.—Amaurosis is a partial or total loss of vision, arising from paralysis of the optic nerve or retina; and this is produced by a congestion of the vessels of the part, or minute alteration of its structure. The eyes look almost natural; the pupil is generally dilated and motionless. There is frequently the sensation as if a cloud was before the eye.

Treatment.—This disease, like cataract, is also extremely difficult to cure. Electricity may be tried, and means made use of to excite a healthy action of the system. Stimulants may be applied to the eyes, and there is nothing better than the diluted tincture of capsicum. The head should be dipped every morning in cold water; benefit may be derived from bathing the feet, and making an issue behind the ears, keeping up a constant discharge. In a word, it should be treated on general principles. Emetics, purgatives, sudorifics, tonics, *nervines*, and alteratives are classes of medicines which should be tried. The following may be used: Take equal parts of extract of *henbane* and *belladonna;* mix them well together with a little water, and rub the eyebrows once or twice daily, and the nape of the neck

Opacity of the Cornea.—From inflammation there are produced specks, felons, or opacities of the eye; to remove these apply a little stimulating eye-water, and also a drop of molasses. If these do not remove them, apply a little of the pulverized *blood-root* once a day with a piece of wet muslin. I recently removed a fleshy excrescence by this last application alone.

Pure white *ashes*, obtained by burning any hard wood, may be applied to the specks or *opacity* once or twice a day, and a little molasses inserted into the eye as often, both of which are sufficiently stimulating. If inflammation follows, apply a poultice.

CHAPTER XXIII.

ANEURISM. (*Aneurisma.*)

Description.—By the term aneurism we understand a pulsating tumour, situated over some artery, containing blood, and formed by the dilatation or rupture of the proper coats of the artery, internal and muscular.

Aneurisms are situated either externally or internally; that is, they are either so situated on the limbs that access may be had to them, and the nature of the disease clearly ascertained, or they are so placed in cavities of the body, such as the abdomen or chest, as to render the nature of the disease very often extremely doubtful.

They are divided by writers into *true* and *false*. One kind is made out to be that which depends on an extension or dilatation of the coats of an artery, and is denominated the *true* aneurism; that which proceeds from an effusion of arterial blood into the surrounding parts is called *false*. The parts where it is most frequently met with are, the ham, thigh, neck, under the shoulder-blade, arm, and groins, and sometimes the aorta.

Symptoms.—The popliteal aneurism in the ham, being that which occurs most frequently, may be taken as an example. A small tumour is first perceived, firm, and little affected by the pulsation of the artery; it is attended with little or no pain, and is disregarded by the patient. It increases in size, becomes softer to the feeling, and has now a very strong pulsatory motion; upon pressure it entirely disappears, but returns again as soon as the cause of compression is removed. Lancinating pains arise, and there is an unaccountable sensation of heaviness, pain, and numbness through all the limb, often accompanied with severe cramps. As the swelling enlarges it acquires great hardness, and the throbbing, before violent and alarming, is now diminished; neither is the blood capable of being removed, by pressure, from its situation. The leg swells, is heavy, cold, and pulseless. At length the integuments, in some cases, acquire a livid hue, the skin becomes thinner from day to day, it cracks and scabs, and blood issues through the crevices; but the first hæmorrhage seldom proves fatal: the patient immediately faints, and a coagulum is formed and closes the orifice; ulceration, however, soon extends, and the patient at last expires after a large effusion, though often not until the lapse of many months, or even years, from the first accession of the disease; or he may recover.

Causes.—*Predisposing.*—A constitutional predisposition; appearing mostly about the middle period of life.

Exciting.—Debility, however induced; accidental injury, of whatever

kind; the removal or destruction of neighbouring parts, by which the artery is deprived of its usual support.

Discrimination.—Aneurismal tumours may be known by the pulsation being perceptible over every part; whereas, in tumours which derive their pulsation from being situated over an artery, it is only to be felt in the direction of the vessel.

Treatment.—The method now adopted in the treatment of aneurisms is, to make an incision down to the artery, passing a ligature around, tying it, and then closing the lips of the wound: this is done to prevent the entrance of blood into the aneurismal sac; but, from the effect of this operation, and from the various reports which have been detailed by those who have performed it, (I mean honest reports, for many I have found have been false,) I am led to doubt the propriety or the utility of the operation. I find, by strict inquiry, that more cases even on record have been cured without an operation, or cured spontaneously by the natural efforts of the system, without the least medicine whatever, than have been cured by a surgical operation, or tying the artery. A large proportion of the cases in which an operation has been performed have proved fatal: occasionally one has been reported which has proved successful; but even such, I find, has often been followed by the most serious, injurious, or fatal effects, such as mortification of the leg, scirrhous enlargement, stiffness, and permanent lameness.

Were I to give an account of the number of cases that have proved fatal by a surgical operation, the catalogue would indeed be frightful. My objections to the operation are the following:

1st. The consequences arising from irritation or pain.

In some habits, and in some aneurisms, such a degree of pain or irritation is produced, that the patient is carried off at the time, or shortly afterward. In this city, some time ago, a woman died in about twenty-four hours after an operation for a femoral aneurism; and numerous others might be mentioned.

2d. The second objection is, the danger arising from hæmorrhage. The impetus of blood is so great after an artery has been tied, that sometimes hæmorrhage or bleeding takes place, and proves fatal.

3d. *Mortification of the Limb.*—If hæmorrhage does not immediately arise from the act of tying the artery, as soon as the ligature or ligatures cut through it mortification often takes place, and carries off the patient.

4th. After the operation of tying the artery has been performed, even if no such effects follow as above-mentioned, in consequence of the anastomosing branches not being sufficient to supply the limb with blood below the aneurismal tumour, or in consequence of the want of a due circulation, the temperature of the limb is diminished or reduced, mortification and sloughing take place, and the limb or life of the patient is endangered or lost: this happened in this city in the case of a Mr. Parcells, who was operated upon for femoral aneurism by Dr. M—.

5th. Callus and stiffness of the limb.

Where an aneurism is situated upon any of the extremities, if the circulation is cut off by tying the artery for an aneurismal tumour, the whole limb frequently becomes not only œdematous and exceedingly swelled, but it likewise becomes stiff, indurated, and so permanently enlarged, that the use of it is entirely lost, and amputation is proposed as the only remedy. This occurred in the case of Richard White, of Brooklyn, who was operated upon for a popliteal aneurism; and such deplorable consequences resulted from it, that amputation was proposed as the only alternative. I objected to this

operation, (for which I received a liberal share of abuse,) and, after about nine months, succeeded so far in reducing the enlargement and removing the stiffness of the limb, that he was enabled to walk without crutches, and now attends to his ordinary business.

6th. I object to the operation, because it does not in all cases even prevent the blood from passing into the aneurismal sac, by which the pulsations and the tumour still continue in a greater or less degree.

7th. I object to the operation again, because nature alone effects more cures than are effected or performed by the operation.

8th. I object to it, because I have succeeded in curing where an operation has been proposed as the only alternative to save life, and where a fatal event was predicted, unless such operation were performed, by a most distinguished operator of this city, (Dr. Valentine Mott.)

9th. I object to it, because the operation is not only uncertain in the event, but because it is excruciatingly painful, particularly under certain circumstances.

10th, and lastly. Because the operation may be resorted to as an experiment, when all other means fail, or as the last alternative.

Did time and space permit, I could here insert numerous cases in which operations have been performed, but proved fatal. See American Practice of Medicine, vol. ii., page 341, in which twenty-one fatal cases are detailed: numerous cases are also there given, in which a spontaneous cure had been effected with little or no medicine.

In the treatment of *aneurism* I recommend almost the non-medical course: the patient must avoid all irritating kinds of drink and food, and all exertion; a mild, vegetable, low diet. The tumour may be kept constantly wet with narcotic plants, as *stramonium*, *henbane*, and *wormwood* simmered in vinegar; a little salt may be added. A purgative to be given about twice a week; and, when the pain is very severe, *narcotics* to be administered, as the extract of *hyoscyamus*, *anodyne powders*, *&c.* When the pulsation and pain are great, rub on the parts a strong solution of *veratria* digested in alcohol, until the pain ceases. Compresses in some cases may prove beneficial. As a spontaneous cure is effected by a rupture of the external coat of the artery, thus diffusing the blood into the cellular substance, would it not be advisable, under some circumstances, when other means fail, to *puncture* the coat of the sac or tumour with a needle, and thus, in imitation of nature, let out the blood when the pulsations and pain cease? When the coat bursts it is accompanied by a loud report. The blood is diffused into the cellular substance, and a callus or hardness closes the artery. The blood circulates by the anastamosing or lateral branches, as in amputation.

After the preceding treatment has been continued for some time, there will often be an audible *snap* or *report*, sometimes almost as loud as a pistol, (to use the expression of the patient,) when instantaneously the beating and pain will cease, the swelling and inflammation subside, and gradually diminish, until there is nothing left except a cartilaginous tumour directly over the artery, which becomes, no doubt, obliterated.

Should this theory be correct, then, as stated above, we might expedite the cure by rupturing the artery with a probe, or passing a seton through it, on the same principle that a ganglion is destroyed by bursting its sac. However, I leave this for the reflection of others. I conceive that there is less danger in pursuing it, and a greater probability of effecting a cure, than by a surgical operation, or tying the artery.

In concluding this chapter I will relate an interesting case of femoral

aneurism, which will serve to illustrate the principle of treatment here laid down.

Mrs. Grant, aged about forty, then residing in Reed-street, in this city, was attacked with a throbbing and beating sensation in the thigh, just below the groin, and over the femoral artery. It gradually increased for several weeks, until the tumour became very large, and the whole leg exceedingly swollen and enlarged. The pulsations were very great, and the tumour almost lost in the surrounding parts; extremely hard, and excruciatingly painful. The whole thigh, from the groin to the knee, and particularly the upper portion of it, assumed a very morbid and diseased state. The circulation was carried on feebly below the tumour, which rendered it exceedingly cold. She was now confined to the bed; and such was the pain attending it, that she took an ounce of laudanum during each night to procure relief. I was called to attend her soon after its commencement; and so formidable was it, that there appeared to be very little chance or prospect of recovery. It appeared, too, that, if an operation was performed and the artery tied, it must inevitably prove fatal, and I had not much confidence that anything which I could prescribe would prove effectual; I was, therefore, at a loss to know what course to pursue. I took a physician, or surgeon, to examine the limb, who immediately proposed an amputation, to save the patient's life. About this time one of the neighbours requested Dr. Mott, of this city, to examine the disease, who, upon finding it an aneurism, immediately proposed an operation, without which, he said, she could not live. To this the woman objected, and said, "the knife should never enter her flesh," let the consequences be what they might.

Taking everything into consideration, the objections of the patient and the danger and uncertainty of the operation, I concluded that it would be more prudent and safe to rely upon nature, aided by suitable means, than to rely upon an operation; it appeared to me that the chance of her recovery would be greater, and, therefore, concluded to abandon it, and wait the result. When Dr. Mott found that both myself and the patient were not disposed to take his advice, so anxious was he to try the experiment of tying the artery, that he employed another surgeon, and one or two private citizens, one of whom was a minister of the gospel, to wait upon the patient, and inform her that, except she submitted to the operation, it would certainly kill her. She replied that she was getting better under the prescriptions of her present physician, and, therefore, should not discharge him. Accordingly, after this I was permitted to treat the case without farther interference or molestation.

My applications were the same as before-mentioned, with the addition that, during part of the time, I applied stramonium leaves the whole length of the leg, to assist in reducing the swelling and inflammation. I also applied a tourniquet above the tumour, over the femoral artery, with directions that it must be tightened in case the tumour should burst, as I feared it would, from the great swelling and enlargement, together with the excessive pain and inflammation.

The tumour continued slightly to improve for some time, when one night she felt and heard a sudden snap or report in the leg, from which time all the symptoms subsided, and she continued to improve, till, two or three weeks afterward, there was nothing left of the aneurismal tumour but a little hardness, or apparently a cartilaginous tumour, immediately over the femoral artery, and which appeared to be the centre of the swelling. Her leg for some time was weak, but the strength gradually returned, and she was soon

able to walk as well as ever. She has been perfectly sound for more than twenty years; and I have several times exhibited the patient to our school, when lecturing upon this subject.

I herewith annex a plate (fig. 12) representing the appearance of the aneurism when I first commenced the treatment of it. About two years after the patient recovered, two surgeons called upon her to know whether she continued well, and what means I employed to effect the cure.

Dr. Porter states two bad cases of aneurism, cured by applying a bandage the whole length of the limb. It first caused great pain, but afterward entirely subsided. It deserves farther trial.

Dr. Mott operated upon a person, on the 11th of June, 1818, in the New York hospital, for subclavian aneurism. On the twenty-third day hæmorrhage came on from the wound: it was stopped by the introduction of lint and the employment of pressure. About twenty-four ounces of blood were lost, whereby the patient was so depressed that the pulse was no longer distinguishable. On the twenty-fourth day, in the evening, he lost four ounces more of blood; on account of his restlessness and the painful state of his arm, two grains of opium were administered to him. After one or more returns of bleeding, he died on the twenty-sixth day.

Fig. 12.



CHAPTER XXIV.

RUPTURE. (*Hernia.*)

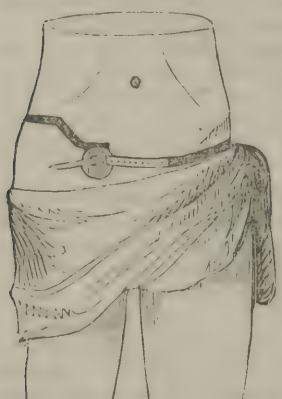
Description.—Hernia or rupture is the protrusion of any viscus or part from its proper cavity. It has obtained various names from its situation, as the *inguinal*, when it occurs in the groin; the *scrotal*, when it occurs in the scrotum; the *femoral*, when it is situated above the groin; *umbilical*, when it occurs in the abdomen or umbilical region; *ventral*, when it is situated in some other part of the abdomen.

There is no rupture, as the term implies, but a relaxation of the parts, which permits some portion of the abdomen to protrude and form a tumour. Sometimes the intestine descends; sometimes the omentum or cawl which covers them, and occasionally both come down. Hernia is divided into *reducible* and *irreducible*; the former, where the contents can be replaced; the latter, where they cannot be, or except with great difficulty. Also *strangulated*.

Treatment.—1st. *In Reducible Hernia.*—First return the protruded parts into their original cavity, by making gentle pressure upon the hernial tumour, and this, in general, is most easily effected in a recumbent position. There is very little inconvenience attending this complaint while the protruded parts

can be easily returned. It may be troublesome, both from the bulk of the swelling and from the intestinal derangements which take place; but, independent of these circumstances, it may exist throughout life without causing more than slight inconvenience. But this state cannot be depended upon, as, from various causes, such as straining, lifting, coughing, &c., the parts may be displaced from their natural situation, and become exceedingly difficult to reduce, and be attended with very serious, if not fatal, consequences. The patient, therefore, should immediately return the parts, and then take proper means to secure them, to prevent them from being displaced. There have been several contrivances to effect this, such as various kinds of bandages and trusses. A truss, in general, of proper mechanism, is best adapted to the purpose: by its permanent pressure upon the opening the parts are prevented from descending, and a permanent cure is often effected. There are a great variety of trusses for the relief and cure of hernia or rupture, and some are very good. A proper truss should have a spring neither too *strong* nor too *weak;* the pad should be neither too *convex* nor too *concave*, and so constructed that it may be graduated at pleasure, and should prevent the descent of the intestines or omentum: the best manner to apply it is in a recumbent position. By the use of such a truss, bathing the parts with the *oil of eggs*, and, subsequently, wearing a plaster of the extract of *oak bark*, a permanent cure may be expected. The following figure (fig. 13) represents a truss properly adjusted.

Fig. 13.



The parts may be bathed twice a day with *salt* and *water*, and, when well dried, bathe them with the *oil of eggs* as often; the truss to be afterward applied: if these do not cure in a reasonable length of time, apply the extract of *white oak bark*, spread on thin leather; place this first over the rupture, and then the truss: this has cured the disease of many years' standing.

2d. *Irreducible Ruptures.*—When a rupture, from any cause, cannot be reduced, it must be supported, in the best possible manner, by a SUSPENSORY BAG. The bowels must be kept regular, and a vegetable diet taken.

3d. *Strangulated Hernia or Rupture.*—When any of the contents of the bowels protrude, and cannot be returned, they are said to be strangulated, usually caused by a strain. There is pain in and about the parts, sickness and vomiting, fever, tension and swelling of the parts, and costiveness. There is always more or less danger attendant on these symptoms; although patients under my treatment have, in almost every case, recovered. The first object is, to reduce it as soon as possible; to effect which the body must be bent, and the tumour pressed upon until it is reduced. The endeavours of the patient to reduce it will be attended with more success than those of another person.

The method of reduction practised by M. Gimbernat, of Madrid, is so ingenious, and at the same time so successful, that I shall give it in detail. He places the patient on his side opposite the hernia, with his body a little bent, and lower than the pelvis, in order to relax the muscles of the abdomen: with the same intention the head is brought forward toward the chest. In the *femoral hernia* he elevates the thigh on which the hernia is, yet so as not in the least to obstruct the operation. Sitting then by the bed-side,

with his hand which is nearest to the patient he grasps the tumour at its base, which is the upper part, and with his first three fingers he compresses it all around, to diminish its diameter; at the same time with the fingers of the other hand he pushes the apex, which is the lower end of the tumour, upward and inward, to direct it toward the crural arch, because it cannot be reduced in any other direction. He has sometimes found that more than one hour was required for this operation. When the patient is fatigued, he ceases both to press and push, yet never quits his hold; when he renews these efforts he gradually increases their force. Of numerous herniæ treated by him in this way, and many of them desperate, those which have not been reduced have been very few. It may be needless to add, that this method is improper, if the tumour is inflamed and very painful, or the part which causes the strangulation. This operation is safe, easy, and generally successful.

It is now the practice with most surgeons to wait but a very few hours before an operation is performed in strangulated hernia. After following those means which I have found are not calculated to reduce it, recourse is had to the knife. Some surgeons commence an operation almost immediately, alleging that it is extremely dangerous to delay even a few hours. Others, again, wait a greater length of time. The operation consists in dividing the integuments, dissecting down to the hernial sac and opening it, removing the stricture, and replacing the protruded viscera.

I will not take it upon me to assert that this operation is never necessary, but I am confident that it is very seldom requisite. I have the best authority for stating, that most of the cases of strangulated hernia for which an operation is performed, would be spontaneously cured, or might be by proper treatment. In very many cases where an operation has been proposed the patient has recovered by very simple means, or none at all. I have been called to some where, at first view, it has seemed impossible to return the protruded viscera without cutting down and dividing the stricture; and yet, by prompt and energetic means, I have succeeded in reducing it, and by the following course:

1st. *Purgatives.*—The treatment may be commenced by administering a dose of croton oil, two drops in milk; no other physic (olive or castor oil excepted) but this will answer in the complaint. Those of a very stimulating nature are apt to aggravate the symptoms: but oleaginous purgatives are beneficial, by the relaxation which follows their exhibition.

2d. *Injections.*—It sometimes occurs that neither this nor any other kind of medicine will be retained upon the stomach. When this takes place, our dependence must be placed upon injections or clysters. The following may be given: Take of *lobelia inflata* and *stramonium*, q. s.: make a strong infusion; to half a pint of which add milk and molasses, the same quantity of each, and a gill of olive or sweet oil; five drops of *croton oil* may be added: mix, and administer with a suitable sized syringe, to be repeated every hour. Not only the fæcal contents of the intestine are evacuated by this injection, but it has a great tendency to remove the stricture by its emollient and relaxing properties.

3d. *Opiates.*—Opium, in strangulated hernia, is often exceedingly valuable. It checks the vomiting attendant on the stricture; allays pain and irritability of the system; removes the tension of the parts, and will often effect a speedy reduction. About three grains should be given every two hours, until the desired effect is produced.

External Applications.—1st. *Steaming or Fomentations.*—A strong decoction of bitter herbs, tansy, wormwood, hoarhound, catnip, and hops may be

thrown into a suitable sized tub or vessel; a narrow piece of board placed over it, on which the patient must be placed, and a blanket thrown round to retain the steam. This will produce perspiration, and contribute very much to lessen the inflammation.

2d. *Discutients.*—Let the hernial tumour, including the neck of it, be bathed with the *bitter-sweet* or *discutient ointment* for half an hour at a time, and, when applied, let some heated article be held a little distance from the parts; the green oil may also be used: let them be alternately applied every hour or two. They also prove serviceable by their emollient and relaxing properties. Bathe likewise with the *croton oil.*

3d. *The Hot or Warm Bath.*—Should the hernia still remain unreduced or strangulated after these means, let the patient be immersed in a warm bath, and continued in until he begins to feel faint.

4th. *Poultices.*—After any of the foregoing applications have been used, let an *alkaline poultice* be applied over the parts and over the seat of the stricture. Let the slippery elm bark be mixed with weak ley, until a poultice of a proper consistence is formed, to be applied tepid, and often renewed. I have found the best effects from this application in strangulated hernia. In one case I applied it when I left the patient at night, and in the morning the viscera returned without the taxis or any manual operation. It removed the pain, swelling, and inflammation, and the parts in the morning appeared very wrinkled or shrivelled.

5th. *Cupping.*—In very critical cases, where reduction is found difficult, four or five cups or leeches may be applied around the neck of the tumour. Cupping has a much better effect than general blood-letting, although I have seldom found this operation necessary in the worst cases.

6th. *Cold or Refrigerant Applications.*—Some physicians or surgeons highly extol cold applications, such as cold water, ice, &c.; but in most cases, as far as I have ascertained, they are attended with a decided injurious effect. They seem to make the stricture worse instead of better; and this, no doubt, arises from the sedative effects of the cold. There is one application, however, that appears to have been attended with some success, which is the sulphuric æther. Wet the hernial tumour with the liquid, and then, in order to produce speedy evaporation, blow upon it with a pair of bellows. A physician states that he has reduced a number of strangulated hernias by this method alone, when they had been doomed to undergo an operation.

7th. *Manual Aid or Assistance.*—It becomes necessary, during the time the patient is making use of these various means, from time to time to make attempts to return the protruded viscera by manual assistance, or what is usually termed the *taxis.* In accomplishing this considerable judgment is necessary. The position of the patient should be particularly attended to: his legs and buttocks should be elevated as high as convenient, forming an angle, if possible, of forty-five degrees. This can be very easily accomplished, by placing the back part of a chair underneath him. His thighs and body must be a little flexed, in order to relax the muscle. The tumour may then be seized, and moderate pressure made, in order to return the parts, as has been previously directed.

I have usually found that the patient himself could succeed best in performing this part of the business. In most instances it is the case, that the viscera have been down often, and he has been in the habit of returning them himself, by which means he acquires a tact in doing it, with which the most skilful surgeon is not conversant.

The above method, in case of strangulated hernia, I have practised invariably with success; nor have I found that danger arising from delay of which writers speak. In difficult cases it sometimes has required several days to reduce the hernia; in other cases a few hours only. It is stated by many that even a few hours' delay are fatal; and this is probably the case under bad treatment or bad management: but I have never witnessed any such result. An opponent to this treatment, or to any longer delay than usual, before proceeding to operate, might say that mortification would take place, and in this way prove fatal; and, had an operation been performed, the life of the patient might have been preserved. But this is by no means a conclusive or valid argument, because it is impossible to say what might be the case under different management, or the common course of treatment. It is more probable that the life of the patient would be lost or endangered by the use of the knife or the dividing the stricture; an inference which is very fairly drawn from the many fatal cases resulting from such practice. Suppose that a patient should be lost under the treatment that I lay down, would it prove that it was any the less efficacious than a surgical operation? I conceive not. I think it would be much more reasonable, judging of the comparative effects of the two modes of practice, to infer that this treatment would save the lives of those patients which are lost in consequence of an operation; and, therefore, from the uniform success which I have had by pursuing this method, I can confidently recommend it in preference to the one adopted, viz., *of operating for a strangulated hernia almost immediately*. I am persuaded that more cases would be lost by the knife than by the treatment I adopt; and even should it fail, (which I have never known,) it does not preclude the act of dividing the stricture: more time only is allowed to try the resources of nature and the powers of art, in whose favour, if we err at all, I have found it the most safe to err.

A tumour appeared in the groin of Mrs. Valentine, of this city; it was thought that the omentum or intestine had descended, and a stricture produced; although the pain and tension of the tumour had subsided, yet vomiting continued. Before proper means had been taken to reduce the hernia, Dr. Alexander H. Stevens, of this city, laid open the tumour, and found that the intestine had protruded and assumed rather a dark colour; also the omentum; all of which he was unable to return, and cut off. He then sewed up the wound. The symptoms for a while were mitigated, but those more dangerous commenced, the parts mortified, which soon destroyed the patient. A judicious treatment would probably have saved the woman.*

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* "We copy the following editorial remarks from the Philadelphia Gazette, the oldest and most respectable daily newspaper in this city. We are pleased that others than ourselves have penetrated through the dark veil that has heretofore mystified the *humbug* which has so long been the support of the self-constituted faculty! We recollect, while attending some few years ago a course of 'Lectures on Practical Surgery,' the professor had a case of hernia; we believe the intestine protruded through the abdominal ring, and produced somewhat of a '*lump*.' *Our* professor thought it best to cut off that portion of the gut which fell out of its place, as he *thought* it was *sphacelus*, (mortified.) He stated to the class that he would report progress of the case; he did so for a few evenings; but suddenly the reporter ceased reporting. In the course of the season we took occasion to inquire after the 'case of hernia,' when we were informed that the 'poor man died.' From what we could glean from the subject, there was not the slightest possible necessity for the operation. Had there been, first, a relaxative from lobelia; second, proper degree of *taxis* employed, there is no doubt in our mind that this 'poor man' would *not* have died.

"The love of 'operating,' cutting and slashing of 'poor men's' limbs, has been a dreadful curse to our land. It shows a great want of therapeutical knowledge in thus *butchering* people to such a degree: had these 'men of steel' more information in regard

It would be very pleasing to me, had I room, to detail a number of cases which I have successfully treated, by pursuing this treatment. In one which occurred some time ago in a very aged man, the practitioner who attended with me decided that the hernia could not be reduced without an operation; and, from its great magnitude, pain, &c., it appeared so; but, by persevering a few hours, I effected a reduction.

I attended a young man, Mr. Neale, with strangulated rupture, who appeared in a most dangerous condition: so completely strangulated were the parts, and so enormous the swelling, and so unyielding the tumour, that I was fearful he could survive but a short time. Every surgeon in New York, I suppose, would have operated immediately: I, however, chose (with great fears, I confess) to pursue the treatment here laid down, and he soon recovered.

In concluding this chapter I will relate a case recorded in the Boston Medical Journal, which shows what course nature alone, sooner or later, takes to cure hernia or rupture. Some practical inferences may, perhaps, be drawn from it.

"*Remarkable case.*—A married woman, of middle age, on one of the islands below the harbour of this city, (Boston,) a short time since, had a strangulated hernia. An opening formed from the tumour, and a considerable portion of the intestine sloughed off. From the peculiar location of the woman, it became exceedingly difficult to obtain a physician; and her husband, therefore, as the only alternative, as he supposed, gave her enormous quantities of physic before the sloughing took place.

There was a complete relief from pain after the fæces began to discharge at the artificial opening, where they continued to pass off about ten days, when the orifice again closed, the discharges readily took a natural course, and the patient now remains in perfect health. We have understood she was not visited by any physician or surgeon till after the cure was perfectly completed."

CHAPTER XXV.

STRICTURES IN THE URETHRA.

From various causes the urethra, or canal that leads the water from the bladder, becomes thickened, smaller, and inflamed, which partially or wholly obstructs the flow of the water. The water may likewise be obstructed by a spasmodic action of the canal. It is generally caused by the venereal disease, and cold.

Treatment.—*First*, when the urine is obstructed, give the *diuretic drops*. If these do not afford relief in a reasonable time, the *spirits* of *mint* may be given, and repeated as occasion requires. Apply fomentations of *hops* over the bladder. If this course fails, a warm bath may be used: should neither

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to botanic remedies, they would seldom have occasion to use the knife. We admit that there is *occasionally* a necessity for amputation, &c., but as Dr. Rush once remarked to his students, 'Gentlemen, *one* surgeon is sufficient for all Philadelphia.' The doctor knew what *ought* to be, and he was honest enough to admit it. Oh, that some of the faculty of the present day would act as Dr. Rush thought."—*From Dr. Cooke's Botanic Medical Reformer.*

have the desired effect, introduce the catheter, which is very simple, and may be done by the patient himself. When the stricture is permanent, a bougie, anointed with the *brown ointment*, and sometimes with the *celendine* or the *bitter-sweet ointment*, should be introduced every day or two, as the person can bear it, and remain twenty or thirty minutes. An injection twice a day may likewise be used, of a solution of *sal soda*, a tea-spoonful to half a pint of water. Give the *alterative syrup*, with the *hydriodate of potash*, internally, as mentioned under the head of venereal disease. Nothing heating in drink or food to be taken.

CHAPTER XXVI.

SUPPRESSION AND RETENTION OF URINE.

From different causes the urine is liable to be suppressed, either partially or wholly, causing great distress. It may proceed from gravel, inflammation of the bladder, prostate gland, urethra, cold, &c. There is swelling, pain, and inflammation of the bladder, with great difficulty of voiding urine, or a complete suppression.

Treatment.—I have found it exceedingly useful to steam the patient over a strong decoction of bitter herbs or hops, as recommended in several other complaints. Both the decoction and the herbs should be thrown into a suitable sized vessel, and a blanket put around the waist of the patient, that the steam may be applied more immediately to the seat of the disease. At the same time let his feet be immersed in warm *ley water*, and let him drink freely of parsley tea. After he has been steamed fifteen or twenty minutes, let the herbs be enclosed in flannel and applied over the region of the bladder, to be often renewed, and applied as hot as can be borne. This will usually produce such a relaxation of the parts as to cause a free discharge of urine. The patient may also take the following: Take a wine glassful of the best Holland gin; add to it a tumbler of spearmint tea and two tea-spoonsful of spirits of nitre; sweeten with honey, and drink the whole. The same portion should be taken every hour until relief is afforded. Where the pain is very exquisite, forty drops of laudanum may be added to each dose. In half an hour, or an hour, this treatment, in almost every case of retention of urine, will afford relief. The *spirits of mint* is also very efficacious; it usually gives immediate relief.

If the suppression of urine does not give way to the means advised, the patient should be put into a warm bath; and, having kept him in for about ten or fifteen minutes, he is then to be taken out: if the urine does not flow, introduce a silver catheter, or one of flexible gum.

In all cases it will be necessary to introduce the catheter with gentleness; even a moderate force, improperly directed, is capable of injuring the urethra in such a manner as to render the operation almost impracticable; and it must be obvious to every physician, that long-continued and violent attempts have a tendency to increase the inflamed state of the urethra; but, besides this, a laceration of its membranous parts might arise, and make an artificial passage by the catheter.

Mr. Miller, of Hamilton, Ohio, who came to this city to consult me for a fistula, and who has been subject to inflammation of the bladder, causing a

suppression of water, states that a strong tea made of pennyroyal always afforded great relief.

A physician called a few days ago and requested me to visit a patient of his, labouring under suppression of urine from a stricture. On examination, I found that there was great swelling and inflammation of the bladder, suppression of urine, and so bad that I was doubtful of his recovery. I had thought of using the catheter to draw off the water, but concluded first to make trial of other means for a short time. I prescribed the *spirits of mint*, with a quantity of *spirits of nitre* and a little *gum camphor*, to be given in table-spoonful doses every half hour, with parsley tea; and fomentation of *hops* to the bowels. This soon produced a free discharge of urine, and relieved him almost immediately, and in a short time he recovered. A purgative was soon after given. I have found this course invariably successful.

In every instance of suppressed urine, whether arising from stricture, gravel, inflammation, an enlarged state of the prostate gland, or spasm, opiates will prove highly serviceable, and ought, therefore, to be administered, not only by the mouth along with diuretics of a mild or bland nature every four hours, but likewise in clysters, repeated frequently. The liquor potassæ, in doses of from twenty to thirty drops, joined with tincture of opium, the patient drinking freely of mucilaginous liquors, such as linseed tea, parsley, elm bark, or barley water, in which a little gum Arabic has been dissolved, is a very useful remedy in all cases of irritation at the neck of the bladder.

Injecting sweet oil, or even warm milk and water, frequently up the urethra, will often afford relief, especially if the suppression has been occasioned by a small piece of gravel which has stuck in the canal. Injecting tepid water into the bladder itself, in similar cases, by a syringe, will also afford great relief.

Where the patient is frequently troubled with strangury, he should take the urinary decoction, diuretic drops, and infusions of spearmint; also the *queen of the meadow, cleavers, pumpkin seeds*, &c.

I have been called to patients when nearly deprived of their senses from the excruciating pain arising from a retention of urine; and, after putting this practice in execution, they have experienced almost instantaneous relief. The transition from acute suffering to relief has been truly surprising to all who have witnessed it; and the feelings of the patient can be more easily conceived than described.

One one occasion a person, with spasmodic stricture, had retained his urine so long that the flesh above the pubis had turned black. Several attempts had been made to introduce the catheter, but all were unsuccessful. Medicine was given, *warm bath* and *injections* used, when the *catheter* very readily entered the bladder, and evacuated its contents.

I have been called when the patient has been groaning and screaming from the severe agony and distress under which he laboured, and in a short time have removed the sufferings, even without the introduction of the catheter: as for puncturing the bladder above the pubis, or by the rectum, I consider it cruel and unnecessary.

The following case is translated from a late work published in Canada, and may be of practical importance:

A case of Retention of Urine from Stricture of the Urethra, related by M. Amussat.—(*Quebec Medical Journal*, 1827: No. V., p. 60.)—"A man aged seventy years, of a plethoric constitution, thirty years previous had had three attacks of gonorrhœa, and ever since has had considerable diffi

culty in discharging his urine, not being able to eject more than one or two ounces at a time. At eight o'clock, P. M., he made an effort to void his urine, without success, which caused him most excruciating pain. His pulses were agitated, face flushed, his abdomen distended, the lower part much tumefied, the subcutaneous abdominal veins distended, and a partial priapism. His efforts to void his urine were extremely painful and fruitless. The following day, at ten o'clock, A. M., M. Amussat introduced a bougie, which was arrested by the bulb of the urethra, and brought a trifling quantity of blood. The urine had now been retained fourteen hours, though he was accustomed to pass it as often as twelve or sixteen times every night. The obstruction was such, that there seemed to remain no other alternative than either to introduce the catheter by force, or to puncture the bladder. M. Amussat finally had recourse to a method which completely succeeded, without putting his patient to the pain of either of the other operations. He injected gradually, but with force, warm water into the urethra, which, in dilating the orifice of the stricture, freed the urethra from the thickened mucus, which was an additional obstruction. As soon as the injected liquid had reached the urine the patient cried out he was cured, and the flow of urine returned, as heretofore. At two efforts he voided about two pints of muddy urine; he has had no retention since, and continues in good health."

If this method is confirmed by experience, of which I have no doubt, it will be of great value in the treatment of strictures.*

CHAPTER XXVII.

GRAVEL AND STONE.

GRAVEL.—DESCRIPTION.—By the term gravel we understand a collection of sand or small particles of stone collected in some part of the body, in the kidneys, ureters, or the bladder.

CAUSES—Our food and drink undoubtedly contain the agents which form gravel and stone. There is sufficient quantity of sand, either in a native state, or combined with other substances, to produce or form calculous concretions. When the system is healthy these ingredients are carried off by the proper secretions of the system: but, when there is debility of any organ, especially the kidneys, they become incapable of expelling such sandy concretions, and, consequently, they lodge in the kidneys, ureters, or bladder. In general, these minute portions of gravel pass off without occasioning much disturbance or disease: but, if there be an excess of uric or any other acid, a chemical union takes place, and these particles

* Dr. Hubbell, of Owensville, Bath County, Kentucky, who has adopted our system of practice, was called, after other physicians, in great haste to a very distressing and dangerous case of gravel; he ordered the patient to be immersed in a hogshead of warm water, then to be covered warm in bed, and perspiration promoted: he also gave a strong tea of the *queen of the meadow*. This treatment expelled several pieces of gravel, and in the morning all his symptoms were removed. The former attending physicians desired Dr. Hubbell to communicate his remedies; he replied, "Read the American Practice, and then you will know." This physician has met with extraordinary success in the treatment of diseases. He has successfully treated several hundred cases of *scarlet fever*; and such has been the demand for his services, that for five days he has been unable to remove his clothes for sleep. His practice entirely supersedes the old; he has now eleven students under his tuition.

of stone are united or combined together, and there is a constant apposition, until they become considerably enlarged, or a stone is formed. This stone (or stones) may be deposited in the kidneys or ureters, and give rise to inflammation of these organs; or it may pass down into the bladder, and, if not discharged, constitute all the symptoms of stone.

Symptoms.—There is usually a frequent and almost irresistible desire of voiding the urine. There is often a sense of weight or dull pain in the back, and an occasional irritation about the neck of the bladder, which now and then extends along the urethra.

A fit of the gravel is attended with a fixed pain in the loins, numbness of the thigh on the side affected, nausea and vomiting, and not unfrequently with a slight suppression of urine. As the irritating matter removes from the kidney down into the ureter, it sometimes produces such acute pain as to occasion faintings and convulsive fits. The symptoms often resemble those of inflammation of the kidneys; but the deposition of reddish brown sand, or very fine powder of the same colour, in the urine, on becoming cold, will demonstrate the difference.

When gravel has once formed in the pelvis of the kidney or elsewhere, it continues to increase, by receiving on its surface new layers of uric acid successively precipitated; of which we may be convinced by cutting the concretions transversely, which enables us to perceive that they are almost entirely composed of concentric layers.

Treatment.—In treating this disease, our object must be to expel the gravel from the system, which must be accomplished, first, by relaxing the parts which are the seat of the affection, and, second, by administering stimulating diuretics. If we are called to treat a fit of the gravel, the most speedy way of giving relief will be to administer an *opiate*, the *black drop*, or an opium pill—the doses to be in proportion to the urgency of the symptoms. This medicine will so far diminish the sensibility of the parts, and at the same time take off the tension or relax them, that the spasms or fit will be allayed. There is usually very severe pain across the kidneys, proceeding from the irritation of the calculus. When this symptom occurs, fomentations will be found very useful: *hops*, simmered in vinegar, must be repeatedly applied. It will be found of great service to throw the patient into a free perspiration; to effect which let the feet be bathed, and a strong infusion of *spearmint* tea be given; this plant has a tendency to allay the vomiting, to produce perspiration, and at the same time promotes a discharge of urine; and, should it be necessary, the vapour bath may be used. If there is a strangury, or difficulty of passing the water, the *spirits of mint* may be freely given, combined with the *spirits of nitre*. The spirits of mint is made by pounding or bruising the green *plant* (spearmint) to a pulp or soft mass, then adding sufficient of the first runnings from the still of Holland gin to make a saturated tincture; add an equal part of *spirits of nitre*, the strongest kind. The watery portion will so far dilute the gin, that it may be taken without the addition of any menstruum. This is to be given as often, and as much, as the patient can bear. No fear need be apprehended of inflammation arising from the stimulating properties of this medicine. There is no other preparation, with which I am acquainted, so exceedingly efficacious as the above in producing the discharge of urine in retention from any cause. I was lately called to a case where two physicians exerted their skill in vain, in a retention of urine from gravel and calculi; and, after giving this preparation, or a similar one, all the symptoms of the complaint subsided in a very short space of time. Having none of the medicine then prepared, I

went into the garden and broke off a quantity of the tops of the plant, bruised them, put them into a quart bottle, and then filled it up with best Holland gin. Of this I directed the woman to take about a wine glassful (whether with the addition of the spirits of nitre, or otherwise, I cannot now say) as often as the stomach would bear. The effect of the medicine was almost immediate. Although she was exceedingly reduced from pain, arising from a long retention of urine, but a very short time elapsed before she was better. Nor was she, like too many in this day, ungrateful for the benefit received. In addition to the commendation bestowed when I presented my bill, she most promptly produced a bag of silver, and evinced, by her manner and feelings, a disposition to pay double the amount. But, alas! where we find one patient of this description, we find five, even after we have cured them of some desperate disease, who, instead of manifesting gratitude for the favour conferred, refuse to pay, and probably will even censure.

Where the case is desperate, it may be necessary to use the warm bath, to produce sufficient relaxation to afford relief. The patient should take mucilaginous and diluent drinks; such as *slippery elm*, *parsley*, &c. *Physic* should also be given; and in some cases *emollient injections* will be required. After the urgent symptoms have been removed, and the ordinary symptoms of gravel exist, a tea-spoonful of the *diuretic drops* should be given two or three times a day, in a tumbler of *wild carrot tea;* and at the same time let the person drink the following decoction: Take *marshmallows*, three ounces; *queen of the meadow*, (*spiræa ulmaria,*) three ounces; add four quarts of water; boil to one; then add two ounces of gum Arabic and half an ounce of nitre, (*nitras potassæ.*) The dose is a tea-cupful four or five times a day: it may be sweetened with honey. If nausea and vomiting attend the complaint, give the solution of the *bicarbonate of potash* or *sal æratus:* this has a tendency, not only to allay the vomiting, but also to remove the calculous deposits. Many persons have derived great benefit from the use of *Hærlem oil.*

For gravel and urinary obstructions the following is excellent: Acetate of potash, two drachms; honey, half an ounce; spirits of turpentine, half a drachm; carbonate of soda, half a drachm; mint water or tea, eight ounces: mix; dose, two table-spoonsful three times a day.

Let the patient drink a gill of red onion juice and a pint of *horse-mint tea* morning and evening, but not together: three days will cause a change. It is stated that it will dissolve the stone.

The above was communicated, by a slave, to a Baptist Minister of Virginia, who was cured by it; he afterward bought the slave, and gave him his liberty.

Says a person: "A strong infusion of Pipsissiway, drank freely, has proved a valuable remedy."

Mr. Blanchard states that he was cured of the gravel, when a boy, by eating freely of fresh whortleberries. They discharged large quantities of foreign matter.

Stone.—Symptoms.—The symptoms of a stone in the bladder are, a sort of itching along the penis, particularly at the extremity of the glans; and hence the patient often acquires the habit of pulling the prepuce, which becomes very much elongated; frequent propensities to make water and go to stool; great pain in voiding the urine, and difficulty of retaining it, and often of keeping the fæces from being discharged at the same time: the stream of urine is liable to stop suddenly while flowing in a full current, although the

bladder is not empty, so that the fluid is expelled, as it were, by fits; the pain is greatest toward the end of, and just after, the evacuation; there is a dull pain about the neck of the bladder, together with a sense of weight or pressure at the lower part of the pelvis; and a large quantity of mucus is mixed with the urine; sometimes the latter is tinged with blood, especially after exercise.

TREATMENT.—A strong tea of pennyroyal may be drank freely; also the following: Take *burdock*, *dandelion*, and *wild carrot*, equal parts; make a strong tea, and drink freely through the day. The *gravel plant* (*epigea repens*) is highly extolled; make a tea, and drink freely. The *button snake-root* (*liatris spicata*) is a powerful diuretic, well adapted to cases of stranguary in case of partial paralysis of the secreting vessels: dose, one gill of the decoction, made by boiling one ounce of the bruised root in one pint of water fifteen minutes. Saturated tincture, dose half an ounce.

I lately prescribed the following, which benefited in two cases: one was exceedingly bad, and this was the only medicine that afforded any relief: *Castile soap* one ounce; *oil of juniper*, twenty drops: mix, and form into pills size of a pea, and take two or three morning, noon, and night; increase the dose as the strength will bear. Dandelion tea was freely drank with them.

Henry states, in his Herbal, that he has cured a number of cases of gravel by a tea of the *life root*, to be drank freely. One person was cured of gravel and obstructions of urine by it, who had tried many medicines without the least effect. He took four quarts of a strong decoction of the leaves and roots.

Mr. Smith states that he took a solution of sal æretus for gravel, which expelled two pieces of *calculi*, and cured him.

The most reasonable theory given of the formation and cure of the gravel and stone, where it is effected, is given by Dr. Perry. He states that all that internal medicine can do is, to prevent any future apposition of the stony concretions, by exciting a healthy action of the urinary organs, and then depending entirely upon the power of the urine alone to dissolve the stone; and, in all probability, it is in this way that medicine, when taken internally, proves efficacious in the disease. In this manner, unquestionably, many persons have been cured of stone in a very aggravated form, and the medicine given has acquired the character of a solvent.

Some years ago I was called forty or fifty miles from this city, to see a lady labouring under a fistula. On my passage there, a gentleman stated to me that he had been for a length of time afflicted with a stone in the bladder, and that he had been entirely cured of it by taking a tea of a simple plant, which was the wild carrot, (*daucus sylvestris.*) He voided forty-seven large pieces of stone, part of which he exhibited to me, and the other pieces, he said, were in the hands of a physician in the city of New York. He made a strong decoction of the top or seeds of the plant, and drank it freely and very warm, and continued the use of it for a length of time. He also stated that, when the stone produced a retention of the urine, he avoided the difficulty by laying upon his back or in a recumbent position, by which the stone was thrown to the posterior part of the body, and he was enabled to make water by turning on one or the other side.

The course which has been recommended in the preceding complaint, the gravel, should be first thoroughly tried in this disease; if it does not prove effectual, I would recommend the patient to submit to the use of the instrument called the LITHONTRIPTOR, employed for crushing the stone in the

bladder, by which the horrible and dangerous operation of lithotomy, or cutting open the bladder, is rendered unnecessary.

From the success which has attended this ingenious invention, by those who well understand it, I confidently hope that this dreadful operation will hereafter be dispensed with.

I speak with confidence on this subject, because I have had an opportunity of witnessing and learning the treatment and operation, as practised by an ingenious French surgeon.

Of thirty patients operated upon by M. Civiale since the month of April of the year 1824, twenty-five have been cured, and the remainder were still under treatment when the memoir was published. Among the former was a lad seven years of age, in whom the operation was attended with great difficulty, by reason of the imperfect developement of the parts and the irritability of the patient; every obstacle, however, was surmounted; the stone, of the size of an almond, and composed of oxalate of lime, was perforated, and extracted in three sittings of ten minutes each.

Should this instrument, and the means recommended, fail of performing a cure, I cannot conscientiously recommend the operation of lithotomy, as practised in this day. There is one, however, that might, under some circumstances, be justifiable, and which I consider to be altogether preferable to that now adopted. It is the ancient method practised by Celsus, being safe, more simple, altogether less painful, and more certain, and may even be performed on children without causing great irritation or much hazard: and we have the best authority for stating, that nothing but the simplicity and the success attending it in the hands of every one who thought proper to make use of the method, induced surgeons to abandon it, and to substitute in its place the common operation of lithotomy. Interest, and new and complicated inventions, then, were the cause of its falling into disuse.

I will now describe this method, as practised by the ancients:

Apparatus Minor Cutting on the Gripe, or Celsus' Method.—The most ancient kind of lithotomy was that practised upward of two thousand years ago, by Ammonius, at Alexandria, in the time of Herophilus and Erasistratus, and by Meges, at Rome, during the reign of Augustus; and, being described by Celsus, is named *Lithotomia Celsiani*. As the stone, fixed by the pressure of the fingers in the anus, was cut directly upon, it has been called *cutting on the gripe*, a knife and a hook being the only instruments used. The appellation of the *less apparatus* was given to it by Marianus, in order to distinguish it from a method which he described, called the *apparatus major*, from the many instruments employed.

The operation was done in the following way: The rectum was emptied by a clyster a few hours previously; and, immediately before cutting, the patient was desired to walk about his chamber, to bring the stone down to the neck of the bladder; he was then placed in the lap of an assistant, or secured in the manner now practised in the lateral operation. The surgeon then introduced the fore and middle fingers of his left hand, well oiled, into the anus, while he pressed with the palm of his right hand on the lower part of the abdomen, above the pubes, in order to promote the descent of the stone. With the fingers the calculus was next griped, pushed forward toward the neck of the bladder, and made to protrude and form a tumour on the left side of the perinæum. The operator then took a scalpel and made a lunated incision through the skin and cellular substance, directly on the stone near the anus, down to the neck of the bladder, with the horns toward the hip. Then, in the deeper and narrower part of the wound, a second

transverse incision was made on the stone into the neck of the bladder itself, till the flowing out of the urine showed that the incision exceeded in some degree the size of the stone. The calculus, being strongly pressed upon with the fingers, next started out of itself, or was extracted with a hook for the purpose.—(*Celsus*, lib. 7, cap. 26. *J. Bell's Principles*, vol. ii., p. 42. *Allan on Lithotomy*, p. 10.)

Enlargement of the Prostate Gland.—Symptoms.—Sense of weight and bearing down in the perinæum; frequent inclination to make water, with difficulty and pain in voiding it; great costiveness; the evacuation of fæces is attended with much pain, and is, in general, accompanied with a discharge of urine; micturition and dysuria increase, and at length a total suppression takes place.

Diagnosis.—The urine and fæces discharged at the same time; the patient, in making water, is observed to kneel and separate his legs from each other, in order to effect a relaxation of the muscles; an examination per rectum, when a large irregular tumour will be discovered in the situation of the prostate gland.

Treatment.—Recourse should be had to all those means which allay irritation in the urinary organs. The internal use of opium, cicuta; the occasional or constant use of a catheter.—(See *Gravel and Stone.*)

CHAPTER XXVIII.

DROPSY OF THE SCROTUM. (*Hydrocele.*)

Symptoms.—An accumulation of a fluid is perceived to commence at the bottom of the scrotum, which gradually increasing, the latter becomes enlarged and distended; a distinct fluctuation is generally to be distinguished; the tumour acquires a pyramidal shape; there is no pain nor discolouration of the integuments; and, upon viewing the parts near to a strong light, a transparency is observable.

Treatment.—At the commencement of the disease, and when a small quantity of fluid only is collected, attempts may be made to disperse it by internal and external applications. When it occurs in children, which is often the case, it may readily be cured by proper treatment, without ever evacuating the water by the trocar or lancet. It is usually connected with anasarca, or a general dropsical affection; and we must begin the treatment in the same manner as we do for general dropsy, by administering *hydragogues* and *diuretics*.

Let the parts be fomented or steamed, by placing the patient over a suitable sized vessel, in which is put a strong decoction of bitter herbs; the heat or steam to be retained in the usual manner, by means of a blanket. Immediately after let the herbs be enclosed in muslin or linen, and applied warm to the scrotum, to be repeated two or three times a day. This treatment should be applied not only to children, but to adults, as in some cases it may remove the disease without farther applications. When it has become large, it usually requires a different course to effect a radical cure.

The water may first be drawn off in the following manner: Let the patient be seated in a chair, when the practitioner will grasp a portion of the tumour,

at its anterior and inferior parts, between his thumb and finger; then, with a lancet, make a small puncture or incision, by which the contents of the scrotum will be discharged. Some use a trocar, but there is no necessity for it; a simple puncture is sufficient. As soon as the water has been discharged, a tent must be introduced into the orifice sufficiently stiff; (and to the largest end there should be a piece of silk thread tied, to keep it from entirely entering the sac;) and another should be introduced in the course of twelve hours, in order to keep the wound from healing, as a radical cure depends, in a considerable degree, upon this circumstance.

Should there be any difficulty attending it in consequence of the wound healing too fast, a mild *escharotic* must be applied to each tent before it is introduced, to enlarge it or keep it open. As soon as the water has been evacuated, every day afterward *Castile soap* and water, to which a small quantity of the tincture of *gum myrrh* has been added, must be injected into the scrotum by a syringe with a long pipe: it should be strong enough to excite a little pain. After this a plaster of the *black salve* is to be applied, and the dressing secured by a suspensory bandage; and, should any inflammation follow, let a poultice be applied.

The hydrocele may also be cured by introducing a seton into the scrotum, and turning or drawing it a little every day, and using injections, as above-mentioned.

This complaint, in all stages, is the most easily managed of any in surgery; at least *I* have found it so, having always cured it without any difficulty.

Sometimes the hydrocele is connected with an indurated state of the testicle, and which Pott called the *hydro-sarcocele*. After the water has been evacuated, by examining the testicle with a probe, it will be found hard and insensible. The cure consists in keeping the orifice open, and injecting occasionally stimulating liquids, sufficiently strong to excite a slight degree of inflammation.

Some time ago I attended a gentleman in this city, who was first attacked with a collection of water in the scrotum, which continued to increase until the swelling or tumour became enormous. I think it had continued for one or two years. It was not transparent, but still its appearance indicated the existence of more or less water. He had applied to several practitioners; but so formidable had it become, that all, except one, were afraid to undertake it. This surgeon proposed such a severe operation, that the patient was deterred from having it performed. When I commenced the treatment I was doubtful what the event might be, but I concluded to undertake it, and hazard the result. I first punctured the tumour in the lower portion of it, about half an inch from the septum or middle portion. After making a puncture with a lancet, I attempted to introduce a trocar, but the water flowed so freely that I found it quite unnecessary. After having evacuated thirty or forty ounces of serous fluid, I injected, with a small syringe, a weak solution of corrosive sublimate, which caused some inflammation, but it subsided in a few days. I then introduced a long tent, over which I placed a piece of lint, then a plaster of the black salve. The whole dressings were then secured by a suspensory bandage. In this manner it was dressed once or twice a day, (the injection excepted.) The patient was now very feeble, and confined to his bed; and, although there was a great diminution of the tumour, yet, from the solution made use of, or injected into the scrotum, there was considerable pain and inflammation. I next applied a poultice, which soon reduced the inflammation, but still the patient did not recover; and, as the disease had become stationary, and assumed a very obstinate and

dangerous character, I requested a surgeon to examine the disease with me. He did so, and, after introducing his probe, and finding a scirrhous state of the testicle, gave it as his opinion that castration was necessary to effect a cure. I could not, however, agree with him, but communicated his opinion to the patient, who was totally unwilling to submit to the operation. I therefore continued my treatment, with very little variation. I applied poultices and discutient ointments until pus or matter collected, when, after being discharged, the hardness, swelling, and inflammation soon subsided, and the man grew better very fast, and in a few weeks entirely recovered.

Scirrhus of the Testicle.—Symptoms.—An enlargement is first observed in the body of the testicle, which becomes preternaturally hard, and gradually increases in size. An acute, intermitting, lancinating pain ensues; the colour of the integuments become livid; the surface assumes an irregular, knotty appearance; and often adhesions of the skin take place: ulceration supervenes; the edges of the ulcer become livid, sore, hard, and retorted; fungous excrescences sprout forth; and, if timely means are not employed to prevent the extension of the disease, the spermatic cord partakes of the affection, becoming hard and knotty. Emaciation and hectic fever ensue.

Treatment.—It is recommended to remove the testicle; but this operation, I believe, is never attended with any success. Sir Astley Cooper, when speaking of this disease, thus remarked: "The operation of castration for this disease is, however, extremely unsuccessful, for it rarely happens that the complaint does not return after the removal of the scirrhous testicle." The same course must be pursued for *scirrhus* of the *testicle* as for scirrhus of any other part.

Inflammation of the Testicle.—Symptoms.—Pain and enlargement of the affected testicle; shooting pains along the course of the spermatic cord. The body of the testicle next becomes affected; it swells, appears hard and painful; the scrotum becomes much enlarged and inflamed; there is a distressing pain in the loins; the system at length becomes affected with fever, quick, hard pulse, nausea, and vomiting.

Causes.—Inflammation of the testicle may be induced by any of the common causes of inflammation, but is most frequently produced by irritation of the urethra, the matter of gonorrhœa, the improper use of injections, or incautious introduction of a bougie. It often follows a suppression of the gonorrhœal discharge from cold; sitting on wet grass is a frequent cause.

Treatment.—The patient should be put upon a spare regimen, remain in a recumbent posture, with the part suspended by means of the bag-truss employed for *irreducible hernia*. If the inflammatory symptoms run high, subdue them by the ordinary means; by *fomentations*, *refrigerant washes*, *poultices*, &c.

The treatment laid down for inflammation in general, must be applied in this disease. Suppuration must be prevented, if possible, by the use of discutient applications.

The testicle must be bathed two or three times a day with the *stramonium ointment*; and, after a short time, let it be changed for the *discutient* and *bitter-sweet ointments*. It should also be fomented or steamed over bitter herbs once a day, and continued as long as there is any pain, swelling, or inflammation. A plaster may also be applied.

Should the disease still progress, and threaten to suppurate, apply a *stramonium poultice* Simmer the plant in water till it is soft, then stir in

a little of the slippery elm bark, sufficient to make it of a proper consistence. This should be applied to the testicle, and kept on by a proper bandage. After suppuration has taken place, or an abscess formed and the matter evacuated, the orifice or orifices must be kept open by means of tents. Injections must also be used, the same as for any sinous ulcer. In general, I use the *alkaline liquid*, made strong enough to excite a considerable pain for a few minutes; the black plaster or salve to be applied as usual. A *purgative* should be given once or twice a week, and the general health renovated by the exhibition of *alterative medicines*.

In this manner I have cured some of the worst diseases of inflamed and diseased testicles, where other surgeons have been unable to succeed, and where castration has been proposed as the only alternative.

CHAPTER. XXIX.

FELON OR WHITLOW (*Paronychia.*)

A WHITLOW is an inflammation of the fingers, thumb, or hand, exceedingly painful, and very much disposed to suppurate. The toes are also sometimes the seat of the disease.

The pain commences deep, with pricking, throbbing, swelling, and inflammation. It proceeds very slowly to suppuration, and often affects the bone and sinews.

TREATMENT.—It is customary, in treating felons, to make a deep incision, even down to the bone; but I have found this practice in most cases to make the complaint worse, as much pain and inflammation follow. Some apply blisters, which also prove injurious, while others recommend a bread and milk poultice, most of which treatment I have found to be useless and injurious.

In treating this complaint successfully, our object should be, if possible, to remove it by resolution, or without the formation of pus or matter; and, if we are not able to accomplish this, to make use of such applications as will favour suppuration.

The patient should be directed to immerse the finger in strong ley, as hot and as long as he can bear it, three times a day; after which mix the elm bark with the liquid, and apply it. If this fails to afford relief, the whole hand must be effectually steamed over a decoction of herbs, consisting of *catnip*, *wormwood*, *hoarhound*, *tansy*, and *hops*. A handful of each should be boiled down until the strength is extracted, then a small quantity of soft soap must be added, and the whole thrown into a small vessel, the hand placed over it, and the steam retained by means of a blanket or piece of flannel, as directed for several other diseases. The steaming should be continued fifteen or twenty minutes, or as long as the patient can bear; and, if there is not sufficient heat to produce perspiration, let a hot brick or stone be thrown into the decoction. This process should be repeated every time it becomes painful. The same herbs and decoction may be preserved, as they answer the purpose as well as those that are fresh. In almost every case, no matter how severe the sufferings of the patient are from the complaint, this operation alone will mitigate them, and afford the most sudden relief.

I have ordered this when the patient has been in acute distress: when he has delayed putting it into practice, under a supposition that it would afford

no benefit, a continuance of the sufferings has forced him to employ it, and the process has been followed by the happiest effects.

Where the disease was deep-seated and protracted I have sometimes found it necessary to apply two or three different kinds of poultices.

I have occasionally used equal parts of linseed and slippery elm, simmered awhile in milk, and applied.

After it has been treated in this manner for a time, a small white spot will appear in the centre of the swelling, indicating the formation of matter. When this symptom appears, the exit of the matter may be favoured by slowly and cautiously introducing a large needle or probe directly through this point or place, from which the matter appears about to issue. By rolling the probe backward and forward, or by giving it a drill-like motion, and making a little pressure, and continuing it for some time, it can be introduced even down to the periosteum without exciting much pain; but, if matter or pus has sufficiently formed, it is unnecessary to introduce it so far. If it cannot be accomplished at one operation, it must be repeated. Where there has been any difficulty in making the opening, I have occasionally touched the end of the needle or probe with the *mineral* or *vegetable caustic;* but this is very seldom necessary. Even after there is a considerable discharge of matter, it may be proper to introduce the probe, to prevent the orifice from closing. Fungous flesh will often shoot from the opening: this must be removed and kept down by a little of the *vegetable caustic* or *potash*. A little of the *vegetable caustic* must also be put into the opening daily.

Some species of felons are exceedingly painful and protracted, producing a necrosis or destruction of the bone. I have been called to cases where the whole thumb or finger has been in a state of ulceration, and the bone partially or wholly destroyed, and where the flesh of the patient has wasted away one hundred pounds in a short space of time, from excessive irritation. When such a form of the complaint presents, in addition to the means already prescribed, the *vegetable caustic* must be applied, and the ulcer enlarged as much as possible, to obtain access to the diseased bone; and when the bone is sufficiently loose, it must be removed by a pair of forceps: after this has been removed, or when the inflammatory symptoms subside, simple dressings are sufficient to complete the cure. The ulcer may be dressed with a little lint, and the black or healing salve applied.

When there is any constitutional disturbance, suitable medicine should be given. If the patient is unable to sleep at night, let him take an anodyne.

After the felon has healed up, sometimes the sinews are contracted, impeding the motion of the joint. For this let the part be daily rubbed with a relaxing ointment or oil. In this manner I have invariably succeeded in curing the worst and every species of felons, and in all their stages; and often when the complaint has been exceedingly aggravated by the common practice, particularly in laying it open.

A patient has just called, who has been in great distress with a whitlow or felon, and who had tried a number of applications without much benefit, a day or two ago I recommended to him the process of steaming, but he neglected it, apparently from the supposition that it was too simple to afford any relief; but, after repeating to him the necessity of resorting to it, he steamed his hand thoroughly, by throwing the decoction, with the herbs, into a small vessel, placing his hand over it, and retaining the steam by a blanket. He states that it gave *immediate* relief, *deadening* or *removing* the pain, and producing a free discharge of matter, and also lessening the swelling or inflammation.

The following was communicated to me by Sidney Bowne, who has had considerable experience in the treatment of felons: "Soak the part half an hour in weak ley, as hot as can be comfortably borne; if the skin on the part is thick, shave it down, but not to bleed; then take clay, dry it, pulverize, and sift it; add spirits of camphor, made very strong with alcohol and camphor, until it is about the consistency of common mortar; apply to the part affected, about half an inch thick; in a short time the clay will become dry, then pour on spirits of camphor until it will not absorb any more. Continue to moisten the clay in this manner as often as it becomes dry, which it will generally do in fifteen minutes.

Pursue the above process for two or three days, without removing the bandage or changing the clay. I consider the above almost an infallible cure, as I have used it on my own person five times; and perhaps, in thirty cases where I have prescribed, not one has failed, when properly attended to. I have known them to be cured without any opening, after a speck of matter was discernible under the skin.

CHAPTER XXX.

POLYPUS.

A POLYPUS is a fleshy excrescence, of various density and colour, originating from the lining membrane of a canal or cavity, as the nose, vagina, rectum, &c.

The common polypus is pendulous, and hangs by a small pedicle; it is moveable within the nose; its size is influenced by the state of the weather, the protrusion being greatest when hazy and damp; it is of the natural colour of the skin, or of a faint red, in some degree transparent and free from pain; it sometimes projects from the anterior, at other times from the posterior, aperture into the nose. Frequently it ulcerates and discharges matter, and affects the bone. The nostrils become full, the voice altered, and the eyes suffused with tears; headache, &c.

Several species of nasal polypi are described by authors, one of which is said to be of a malignant nature, disposed to end in cancer. This, however, I believe is extremely rare; the most common are a fleshy, red, vascular polypus, and a pale, tough, firm polypus, neither of which is of a cancerous nature.

TREATMENT.—I have succeeded in curing this disease, when it has not become too large, by directing the patient to use the following snuff: Take *bayberry bark* and *blood-root*, pulverize, and mix. This must be snuffed up the nose frequently through the day. If the polypus is too large to admit it, it may be introduced by tying a strip of linen to a probe, wetting it, then dipping in the powder, and touching the tumour with it; to be often repeated. Where the tumour is quite large, and this method does not prove effectual, it may be necessary to introduce a pair of forceps, seize the tumour as far up as possible, and compress so hard as to disorganize it; or by turning the forceps to twist it off, and afterward apply the powder to prevent a regrowth. I have never had occasion to do this, except in one instance, and this was in the last stage of the complaint. Many practitioners are in the habit of introducing a ligature round the polypus, by means of a double canula. But, whether taken out in this manner or by the forceps,

it is very apt to appear again, except some escharotic be applied to the source or origin of it. The above powder generally turns the polypus black, when it will either disappear by a discharge, or drop off. The powder must be continued for some time after it is apparently well. The blood-root alone, snuffed up the nose, has cured the polypus.

The last case I attended was that of a farmer, who came from the state of Pennsylvania to ask advice of me. His nostril was filled with the polypus. I was obliged to extract a portion of it with the forceps before I could introduce the medicine. I gave him pulverized *poke-root* to put up his nose, which, I was informed, subsequently continued to slough it off till, in all probability, it was entirely destroyed.

When he was about to leave he wished to know what my demand was, and requested me to "charge him well," adding, "I am afraid that you will not ask enough." I replied, "Suppose that I should charge twenty dollars?" (twice the sum I had thought of.) In the most prompt manner, he unfolded a large roll of bills and handed me that amount, and added, "Now, I will give more, if you desire it."

I mention this to exhibit a very rare trait in the human character, *and as an example worthy of imitation.*

CHAPTER XXXI.

SALT RHEUM—TETTER. (*Herpes—Psoriasis.*)

This is a troublesome, inveterate eruption, appearing on different parts of the body, usually the hands. Very small eruptions or vesicles appear, which break and discharge a thin, ichorous, or corrosive fluid, that causes a very great degree of irritation or itching: afterward scabs often form upon the part affected, which, though they be rubbed off or dry away, will reappear after awhile.

It is attended with more or less inflammation and swelling; and such is the degree of itching sometimes attending it, that the patient is obliged to scratch continually, to obtain the least relief. The whole hands or parts occasionally become excoriated, stiff, and almost immoveable. It seems to be located principally underneath the skin; although, from its disappearing in one part, and then appearing in another, it is evident that the disease is located in the vascular system or the blood. It appears to be occasioned by a retention of morbid humours, which are thrown to the surface, and which the system seems unable entirely to expel.

The disease appears to be very similar to the different species of herpes, as described by some authors. Four kinds are enumerated:

1. *Herpes Farinosus*, or what may be termed the *dry tetter*, is the most simple of all the species.

2. *Herpes Pustulosus*. This species appears in the form of pustules, which originally are separate and distinct, but which afterward run together in clusters.

3. *Herpes Miliaris*—the miliary tetter. This breaks out indiscriminately over the whole body; but more frequently about the loins, breast, perinæum, scrotum, and groin, than in other parts. It generally appears in clusters, though sometimes in distinct rings or circles, of very minute pimples, the

resemblance of which to the millet seed has given rise to the denomination of the species.

4. *Herpes Exedens*, the eating and corroding tetter, (so called from its destroying or corroding the parts which it attacks,) appears commonly, at first, in the form of several small painful ulcerations, all collected into larger spots, of different sizes and of various figures, with always more or less of an erysipelatous inflammation. These ulcers discharge large quantities of a thin, sharp, serous matter, which sometimes form into small crusts, that in a short time fall off.

Treatment.—The treatment may be commenced by applying the following wash: Take of *celandine*, (*chelidonium major*,) a table-spoonful; *Irish whiskey*, or good *spirits*, one pint: add the *celandine* to the spirits, and digest a few days, to extract the strength: wash often with this tincture; after which apply the *brown ointment*.

An ointment of the garden *celandine* is also very good; it may be applied whenever the itching is troublesome.

If the complaint is attended with any inflammation, it must be first subdued by a poultice made of *slippery elm bark* and fresh milk, which will soon allay it, as well as the itching.

The patient should take internally such medicines as are calculated to purify the blood; as the *alterative syrup*, and an *infusion of black alder bark* and *yellow dock*.

An excellent beer or diet drink, possessing alterative properties, is made by boiling, in a suitable quantity of water, the following articles: Take the root of *sassafras*, (*laurus sassafras*,) *burdock*, (*arctium lappa*,) *black alder*, (*prinos verticillatus*,) *wild cherry tree*, (*prunus Virginiana*;) of this let a strong decoction be made, then sweeten with molasses or honey, and, when about blood-warm, add a sufficient quantity of yeast to ferment it: the patient should take freely of this beer.

The *alterative syrup* should be taken internally, and the *hydriodate of potash* added, half an ounce to every bottle: it should be used until well. Roots and herbs possessing alterative properties may be used. The vapour bath is likewise a great auxiliary in the treatment of this complaint. It often proceeds from the use of animal food, and, therefore, a milk and vegetable diet must be strictly observed.

Take *yellow dock*, pound fine, add one quart of cold vinegar, (perhaps spirits would be better,) and let it stand twenty-four hours; wash every two hours: said to cure all cases.

In some eruptions, assuming an anomalous character, and particularly those appearing on the face, body, and extremities of infants and children, as well as adults, I have found the application of the *brown ointment* a very valuable remedy.

In some species of this disorder, where other means fail, the *yellow dock*, *stramonium*, and the *discutient ointments* may be used alternately; for such a protean type does the *salt rheum* or *herpes* sometimes assume, that a variety of medicines become necessary to eradicate every species of it.

Barbers' or Jackson's Itch.—This is an herpetic affection, which much resembles the salt rheum. It is contagious, being communicated from one person to another, generally by a razor in shaving; and is attended with heat, itching, swelling, and the formation of eruptions and scabs: it spreads to a considerable extent, which renders it very difficult to have the beard taken off.

Treatment.—Apply the *celandine tincture* and the *brown ointment* alternately. Should this fail, apply a little of the *white precipitate*, dry; wet the finger with spittle, and touch the parts whenever they itch: this removed one severe case, which several physicians tried in vain to cure. Yellow dock, pulverized, and added to vinegar, and the parts wet with it, is said to be a remedy.

Chafing and Excoriations.—Salt and brandy, a saturated solution applied to the parts daily, is an excellent application for chafing and excoriations. The *celandine ointment* is also very efficacious. If these fail, apply the *herpetic* or *brown ointment*.

Stiff Joints, Callus, Contraction of Tendons, etc.—Apply the *rheumatic liquid*, *bitter-sweet* and *discutient ointments*. Also the following: Take fish oil, beef brine or salt and water, beef's gall, one gill each; four yolks of eggs, (beat up:) mix, and shake well together; apply three times a day.

CHAPTER XXXII.

CHILBLAIN. (*Pernio.*)

Chilblains are painful, inflammatory swellings, of a deep purple or leaden colour, to which the fingers, toes, heels, and other extreme parts of the body are subject on being exposed to a severe degree of cold. The pain is not constant, but rather pungent and shooting at particular times, and an insupportable itching attends. In some instances the skin remains entire, but in others it breaks and discharges a thin fluid. When the degree of cold has been very great, or the application long continued, the parts affected are apt to mortify or slough off, leaving a foul, ill-conditioned ulcer behind.

Children and old people are more liable to be troubled with chilblains than those of a middle age; and such as are of a scrofulous habit are very apt to suffer severely from them.

The best mode of preventing these affections is, to avoid, with much care, any exposure to wet or cold; therefore those who are subject to them should be cautious, on the approach of winter, to keep warmly clothed.

Treatment.—If the parts have been recently frozen or frost-bitten, the fire must not be approached, but the cold gradually abstracted. The affected parts may first be immersed in snow or cold water, which will remove the frost; after which let brisk friction be used, and a little camphorated spirits be applied. If there is much pain or inflammation, apply an elm bark poultice; after which a cooling and soothing ointment, and, lastly, the *black* or *healing salve*. The *brown* and *celandine ointments* are good.

A person informs me that pure linen stockings are a sure remedy for chilblains, to be worn from fall to spring. Immersing the parts often in *salt* and *water*, cold, invariably benefits this affection.

CHAPTER XXXIII.

TIC DOULOUREUX. (*Neuralgia.*)

This term is used to signify a disorder, the most prominent character of which consists in severe attacks of pain, affecting the nerves of the face. It commences with acute pains shooting from certain parts about the forehead, eyebrows, inner corner of the eye, ear, cheek, nose, palate, and teeth, attended with more or less twitching of the muscles. It attacks suddenly, and is very peculiar. The pain darts along the course of the affected nerves, and occurs in paroxysms of the most excruciating agony, succeeded by intervals or intermissions. The pain may be compared to a sharp instrument piercing the flesh, and generally draws the tears copiously from the eyes. It is usually quite protracted, and wastes the patient, and sometimes proves fatal. Generally there is no swelling nor inflammation of the parts. It proceeds from debility of the whole nervous system.

Treatment.—The treatment consists, 1st, in cleansing the stomach and bowels; 2d, in giving tone to the system, by the exhibition of strengthening medicines; 3d, in administering *anodynes*. If the pain is very severe, administer the *anodyne powders* in large doses, or the extract of *henbane*. Bathe the parts affected with the tincture of the same, and also with the *rheumatic liquid*, to be repeated every hour or two until relief is obtained; after which let the *restorative bitters* be taken internally, with the addition of *red oxide of iron*, half an ounce to a quart of the bitters: occasionally an emetic, and the *anti-dyspeptic pills* every night, or every other night. I treated the last case, which was very distressing, in this manner, and soon effected a cure. The extract of *belladonna* and *hyoscyamus*, equal parts, rubbed together, with a little spirits, and applied to the parts affected, is calculated to remove the urgent symptoms; or an ointment made of the tincture of *henbane*, by simmering with lard or fresh butter, and rubbed on the parts affected, is a good auxiliary.

I attended an old lady who had been suffering under nervous irritation in various parts of the body, from some cause, for more than twenty years, and could obtain no relief. I gave her *alterative syrup*, with the addition of *hydriodate of potash*, which was the only treatment that afforded any relief.

I relieved or cured three very bad cases by giving our *restorative wine bitters*, with the addition of an ounce of the *red oxide of iron* to one quart; the *dyspeptic pills*, occasionally a dose of *mandrake physic*, and an *emetic*; also *extract of henbane*, one common size pill twice a day. When the distress is very great, *anodyne powders* are excellent.

Dr. King states that his brother-in-law, Professor T. Woodward, uses the extract of *conium maculatum* for the cure of tic douloureux. The extract is prepared by grinding the plant, pressing out the juice, and then suffering it to evaporate in the sun to a proper consistence. He makes extract of poke, stramonium, &c., in the same manner.

Smoke equal parts of *black pepper*, *sage*, and *stramonium*, mixed and pulverized, and force the smoke through the nose; repeat often. Rub the parts with an alcoholic solution of *veratria*, to deaden the sensibility of the nerves.

CHAPTER XXXIV

TUMOURS, &c.

Tumours are of various kinds and sizes, as sarcomatous or fleshy steatomatous, called wens; encysted, when there is matter contained within a cyst. The contents of some are soft and pulpy, like honey; others similar to common flesh; in general they are free from pain, but are more or less troublesome, and grow to a great size.

Treatment.—Tumours may be removed, particularly when they are pendulous, by passing a silk or linen thread around the base, and then fastening it to a short piece of metal or wood, and daily drawing it tight enough to stop the circulation. Tumours of great magnitude may be taken off in this manner; and there is an advantage in removing them in this way, in consequence of no hæmorrhage attending the operation. Besides, the patient has less dread of it than excision by the knife.

I removed a very large sarcomatous or fleshy tumour, of fourteen years' standing, in this manner, from the shoulder of a lady in this city, which was preserved in a jar of turpentine, and exhibited a length of time in Scudder's museum as a curiosity. I have found very little difficulty in removing every kind of tumour, without resorting to the knife.

Another method I have successfully practised, which consists in applying the *caustic potash* over a small portion of the most prominent part of the tumour, until a deep eschar is formed, and afterward applying *slippery elm bark* and *yeast*, to promote suppuration. After a few days sloughing will commence, and the contents of the tumour will be discharged. I once removed a tumour from the face of a person, which was so large that the boys were in the habit of running after him, to examine it as a matter of curiosity.

The following is the method of applying the caustic: Take a stick or roll of the *caustic potash*, and enclose it in a piece of paper, all except the end, to prevent injury to the fingers; then, after having wet the most prominent part of the tumour, gently touch or rub it in a circular form, about the size of a twenty-five cent piece, or according to the size of the tumour, to be continued until the skin turns brown or dark, which is usually in about five or ten minutes. As the caustic dissolves it runs down and excoriates the parts: this should be absorbed by cotton or linen. The pain is severe for a short time only, and no more is experienced until the eschar separates. A poultice of the elm bark and yeast must now be kept on, to favour the process of sloughing, or a detachment of the disorganized parts; which, when done, gives vent to the internal portion or substance of the tumour.

I think it is much better to remove tumours in this manner, than by the knife; because, 1st, in using the knife, it is necessary to dissect the whole tumour, which is very painful; 2d, there is sometimes danger of hæmorrhage; 3d, the tumour is more apt to recur after excision, than when it is taken out by this method, particularly where the contiguous parts are diseased.

I saw an account, in a Baltimore paper, of one or two large tumours being removed merely by puncturing them in several places, and then exciting a discharge by injecting a stimulating liquid.

In passing through the street some time ago, my curiosity was attracted

by a tumour of considerable magnitude, which was situated on the cheek of a negro. I examined it, and made some inquiries respecting it. I found that about one-half of the tumour had been removed, which, he informed me, had been effected by rubbing upon it, two or three times a day, the juice of milk-weed, or the milky fluid which issues from the plant; and, from the change that had been produced, I have a favourable opinion of this juice in some kinds of tumours.

There is a species of tumour which, it appears, the knife, caustic, ligature, or anything else, has not been sufficient always to remove: I mean the bony, callous, or osteo-sarcomatous tumour. Amputation has been performed for this, and various other means tried, but without effect; although I cured one which appeared upon the side of a gentleman, who, in consequence of its inveterate character, came to me a distance of sixty miles to have it treated. I applied sassafras oil and camphor, and cupped it often; then a discutient or sweating plaster, which, after about six months, entirely dispersed it. I have repeatedly seen the patient since, who is perfectly well.

A gentleman from the eastward informs me that a bony tumour appeared upon some part of an ox belonging to his father, and which he entirely removed by applying the *phytolacca decandria*, or the common *poke* or *scoke root*. From analogy, we may infer that this plant, which possesses great discutient properties, would cure tumours of a similar nature appearing on the human body.

A gentleman called at the office the other day, who had had a wen upon his cheek for eighteen or twenty years, and which one of my students removed by the preceding treatment: and another student has removed one since, which had been upon the face for many years, by one application of the caustic potash, which enveloped the whole in an eschar, and removed it in a solid mass.

From the success we have invariably had in removing different kinds of tumours in the manner here laid down, I am induced to believe that the knife is very seldom required.

Wash the tumour three or four times a day with salt and water. A large sarcomatous or fleshy tumour was benefited, growth arrested, and pain removed, by applying *yellow ointment*, (*bitter-sweet*,) and *poke-root*, roasted and mashed. The patient called to see me a few days ago, and stated that he should not now be living, but for the benefit he had received from the *reformed practice*.

Mother's Mark.—(*Nævus Maternus.*)—A small prominence or excrescence in infants, rising generally a little above the skin. They are fleshy and very vascular, (bloody,) consisting of a number of bloodvessels. The infant is born with this mark: sometimes they disappear spontaneously; at other times they become malignant, and prove serious.

Treatment.—The treatment has formerly been to cut them out; now the practice is, to run a number of red-hot needles into the tumour, and thus destroy it. Both of these methods are cruel and unnecessary. Apply, three or four times a day, the juice of milk-weed, (*asclepias syriaca;*) if this does not remove it, rub it well, and often, with the juice of *celandine*. Should it still remain, touch it daily very slightly with the caustic potash, as little as can be applied at a time.

CHAPTER XXXV.

BRONCHOCELE.

A TUMOUR on the forepart of the neck, formed by an enlargement of the thyroid gland. The progress of the swelling is extremely gradual, and, in general, the skin long retains its natural appearance. It is at first soft; but as it advances in size it acquires a great degree of hardness; the skin becomes of a brownish or copper colour, and the veins of the integuments are varicose. The face is subject to frequent flushing; the patient complains of frequent headaches, and likewise of pains shooting through the body of the tumour. It is often accompanied with hysteric affections.

CAUSES.—The inhabitants of Derbyshire, and other mountainous parts of Europe, and those of the Alps and adjacent mountains on the continent, are peculiarly subject to this disorder. Among the latter it is known by the name of *goitre*, and its origin is ascribed to the use of snow water. It is considered a scrofulous affection of the gland.

TREATMENT.—An ointment made of the roots of poke may first be applied; and, if this does not discuss it, apply the *discutient ointment:* if this fails, make an issue upon the tumour with the caustic potash, and then poultice it with yeast and elm bark, to promote a discharge. The juice of milk-weed, from its specific effects in removing wens, might also remove this kind of tumour: in other respects, let it be treated the same as scrofulous tumours, both internal and external.

Dr. S. Bell, a graduate of our school, has recently cured a difficult case of bronchocele by pursuing this kind of treatment. The *discutient ointment*, united with an ointment made of the poke-root, contributed much toward the cure. Also apply *poke-root*, roasted.

An ointment made by mixing the ashes of burnt sponge with lard, equal parts, is recommended; it should be rubbed on three or four times during a day: it will subside very slowly.

CHAPTER XXXVI.

COMMON BILE. (*Furunculus.*)

THIS disease is so well known that it needs not much description; and, although very common, is extremely tedious and painful. A hard, circumscribed, exquisitely painful phlegmonous tumour, generally appearing under the figure of a cone, the base of which is considerably below the surface of the surrounding skin. Upon the most prominent part of the bile there is commonly a whitish or livid pustule, exquisitely sensible to the touch, and immediately beneath this is the seat of the abscess. The matter is generally slow in forming, and seldom found to exist in considerable quantity.

TREATMENT.—When in a state of inflammation let it be poulticed with a mixture of equal parts of linseed and slippery elm bark, boiled for a short time in rain water or milk. If the pain is very great, steam the part over bitter

herbs. After it suppurates and breaks, and when the inflammation has subsided, apply the *black* or *healing salve*, or the *yellow salve*.

CHAPTER XXXVII.

ENLARGEMENTS OF THE TONSILS.

Enlargements of the tonsils may be of two kinds:

1. The common abscess, occurring in cynanche tonsillaris or inflammatory sore throat.

2. A chronic swelling, generally the consequence of previous inflammation of the gland in a scrofulous habit. They often become so large as to impede both respiration and swallowing.

Treatment.—Occasionally give a purgative, and also an emetic; after which excite perspiration by the ordinary means recommended. If the child is of a suitable age, let it frequently inhale the steam of bitter herbs. When the swelling is very great, bathe it with equal parts of *sassafras* and *olive oils*, to which add a little gum camphor: afterward apply over the tonsils equal parts of hops and wormwood, simmered in vinegar. When the inflammation has in a measure subsided, apply the *discutient ointment* on a batt of cotton, to be kept constantly bound on the throat, over the seat of the swelling. The tonsils, if practicable, should be frequently touched with common *ley*, by means of a piece of sponge or muslin fastened to a probe or piece of stick. The feet must be frequently bathed, and exposure to wet and cold avoided.

It is customary to remove the tonsils, when they become enlarged, with the knife or ligature; but this is very painful, and not devoid of danger, and, if possible, should never be resorted to: if these means be persevered in, they will effect a cure without either of these operations.

In case the almonds of the ear are so large that the difficulty of breathing is very great, they may be touched daily with a little *caustic potash* until dispersed

CHAPTER XXXVIII.

GANGLION.

A hard tumour, moveable on the tendons, called "*weeping sinew.*"

These tumours, although indolent, being yet very troublesome by pressing on the tendons, it may be necessary to remove them. This can in common be effected by exciting the absorbents—the best way of doing which is, by pressure; for this, when applied to a degree just beyond the point of ease, calls forth their activity to remove, when it is removable, the pressing substance, and that substance is the ganglion. I need scarcely add, that the pressure must be uniform and long continued.

Another method of cure is, to give hard and repeated blows with a book; for this, by bruising, disturbs the organic structure of the part, and

thereby, according to a beautiful law of the animal economy, excites the absorbents into action for the purpose of conveying it away.

When the ganglion, by neglect, has been suffered to enlarge itself, it may be vain to attempt its resolution in these ways. Nothing then remains but to remove it.

Treatment.—I have removed this complaint in the following manner: Make a small puncture into the tumour with a lancet, which will evacuate a fluid of a transparent appearance; then, with a suitable syringe, inject a stimulating liquid; after which introduce a tent, and apply a plaster. Let it be kept open as long as possible.

It may also be removed in the same manner that is recommended for the removal of other tumours. Let it be touched with the *caustic potash* until an eschar is formed, and then employ the *yeast* and *elm* poultice to separate it.

CHAPTER XXXIX.

DEAFNESS

This is most commonly owing to a relaxation of the tympanum, accumulation of wax, or paralysis of the auditory nerves.

Treatment.—Hot, stimulating oils applied by means of wool; drop into the ear the balsam of copaiva, then inject soap-suds daily. If this fails, try electricity, and keep up a discharge behind the ear by means of an issue. Introduce into the ear the *sap of hickory*, procured by placing a stick over the stove or fire, and preserving the sap as it is forced out; *watchmakers' oil*, and the same quantity of *spirits of turpentine*, may also be tried in the same manner. Frequently stand by the side of a cannon when fired.

Dr. C. Brady, a botanic physician, recommends the following: Take sassafras oil, five drops; sweet oil, half an ounce: mix, and drop into the ear once or twice a day. He says that this seldom or never fails.

Extraneous Bodies in the Ear.—These may often be extracted by means of a small forceps, or by syringing the ear with tepid water. Should these means be unsuccessful, they may be suffered to remain with impunity, if they do not produce pain, as in a short time they will be forced out with the accumulating wax.

Insects may be killed by filling the ear with spirits, or any other fluid, and afterward removed by injections of warm water.

CHAPTER XL.

AGUE, OR PAIN IN THE FACE AND JAW.

The jaws, teeth, and face frequently become swollen and painful, proceeding from cold, which is termed, by some, ague in the face. It is a very distressing complaint.

Treatment.—1st. Steam the jaws or face over bitter herbs.

2d. If the swelling be very great, apply a *ley poultice.*

3d. Bathe the parts with the *rheumatic liquid.*

4th. Dip a piece of cotton or lint in the *tincture of red pepper*, (*capsicum*,) made warm, and place it between the cheek and the teeth. A free discharge of saliva follows, which usually affords immediate relief.

Toothache.—Pursue the same course. If it fails to cure, dip a piece of lint in the *oil of cloves*, and press it into the tooth affected. If this fails, apply the *oil of capsicum* in the same manner. And if all these means fail, the *nerve* may be destroyed by putting into the decayed tooth a few drops of *nitric acid.* Great care must be observed to keep it from touching or getting into the mouth.

If the patient is unwilling to have the tooth drawn, and the pain is very great, an *anodyne* may be taken.

By cleaning the teeth two or three times a week, or even once a week, with a powder composed of equal parts of levigated *charcoal* and *prepared chalk*, it will both preserve and prevent them from aching: or *salt* and *water.*

Dr. Harris states that the *oil of summer savory* instantly and permanently cures the toothache; to be introduced on cotton or wool.

CHAPTER XLI.

INVERTED TOE-NAIL.

A disease frequently occurs in the toe, productive of much inconvenience and distress—an inversion of the nail, generally of the great toe, which grows in upon the flesh, usually in consequence of wearing a tight shoe.

This complaint is attended with severe pain and inflammation, sometimes with ulceration. A fungus arises in many cases, which is extremely sensible, and gives great pain when touched, so that the patient is completely incapacitated from walking. The nail, in many cases, becomes entirely imbedded in the flesh, and in others a thick skin forms over the greater part of it. Distressing spasms occasionally result.

Treatment.—The foot must be well bathed in very warm ley water at least once a day, and the slippery elm bark poultice applied immediately after: this will diminish excessive inflammation, and render the patient more comfortable. But, in order to effect a radical cure, it will be necessary, immediately after the foot has been immersed in the ley water for twenty or thirty minutes, to press down as far as possible, without exciting too much pain, pledgets of lint between the nail and the flesh, until the nail is brought upon a level with the contiguous parts; and after this has been done, if the inflammation has measurably subsided, let a plaster of the black salve be applied directly over, and a narrow bandage again bound over this, in order to secure the dressings.

I find it best to apply sufficient lint to elevate it above the nail and flesh, that the plaster and bandage may continually produce such a degree of pressure as to separate the flesh from the nail. Where there is great soreness, the lint may be dipped in a little *celandine* or *bitter-sweet ointment*; and if there is much fungus or proud-flesh shooting up from the ulcer, apply a few grains of the *vegetable caustic.*

After continuing this treatment a few days, an opening will be made down to the bottom of the projecting nail, except it be unusually deep; and the act of bathing the part will so soften the nail, that the portion which is the source of irritation can easily be removed, which may be done in different ways.

I have been in the habit of raising the nail with a small pair of tweezers, and then cutting it off with a penknife. Previous to this, however, it is desirable, not only to open the parts well, but actually to introduce the lint underneath the point of the nail which penetrates the flesh; and, when this is done, the patient feels comparatively well, as the pain and inflammation suddenly subside. This not only affords great relief, but enables a person to cut off the nail without creating much pain. Sometimes I cut off a little at every dressing; at other times nearly the whole.

The nail must be removed upon a line level with the nail of the opposite foot on the same side, and afterward the lint and plaster must be kept on until the ulcer has healed. In following this method I have never yet failed, in a single intance, of effecting a cure; nor have I ever known a case, after it has been thus cured, to return again.

One lady, I now recollect, applied to me, a distance of forty or fifty miles from this city, who was suffering under a very severe case of inverted toe-nail. It was very painful, and she was unable to walk; but, after pursuing the foregoing treatment a few weeks, she was cured, and has remained well ever since.

Another case occurs to me, which strikingly exemplifies the difference between this practice and that usually pursued. A woman of this city had been for many years labouring under this disease in a most aggravated form She was in the hospital some length of time, but the surgeons there were unable to cure it. She suffered so much that she requested them, and subsequently myself and another surgeon, to amputate the leg.

It is impossible for me to describe the deplorable state into which this woman was thrown by the complaint. The seat of the disease was in the great toe of each foot; and so deep had the nails penetrated into the flesh, that the pain, swelling, inflammation, and ulceration were excessive, extending to the feet and legs, and which affected the constitution, and rendered her not only a cripple, but completely miserable.

I was called to attend her in connexion with a noted surgeon of this city. He commenced the treatment of one toe, and I commenced the treatment of the other; and while I pursued the plan already laid down, he passed a pair of forceps underneath one corner of the nail, and suddenly tore the whole of it off, in the act of which the woman fainted, and was thrown into convulsions.

Although the nail was thus entirely removed, so far from curing her, it only aggravated the complaint: whereas, the toe which I treated, and on which no such operation was performed, became perfectly well, and has remained so for years; and it is now my impression that it was, in the commencement, not worse than the other; thus clearly evincing the difference between the two modes of treatment.

CHAPTER XLII.

CORNS AND WARTS.

Corns are too well known to need any description; and, although attended with no danger, they are exceedingly troublesome and painful. They are usually occasioned by wearing shoes that are too tight or small.

Treatment.—As prevention is better than cure, persons should be careful to wear such shoes as sit easy, and produce no pressure or irritation. But when this precaution has not been attended to, and they become afflicted with them, the following treatment will be found very effectual: Bathe the feet or foot in warm ley water every day; after which apply the *black salve* or *plaster*. I know not that I have ever recommended this without its having had the desired effect.

Dr. Seely informs me that he has always cured corns by bathing the part in warm water, and paring or shaving the corn with a razor, and then covering it with an alkaline powder called *kali præparatum*. This, he says, entirely destroys them. I presume that the vegetable caustic would be still better, as it is more active.

Corn Plaster.—Purified *ammonia* and *yellow wax*, each two ounces; *acetate of copper* or *verdigris*, six drachms: melt the first two ingredients together, and, after removing from the fire, add the verdigris just before they get cold: then spread on soft leather or linen, pare the corn with a knife, and apply the plaster: remove in two weeks. "This is infallible," says Samuel Cooper.

Warts.—A very popular remedy for warts, in the country, is, the juice of milk-weed and the juice of celandine. If neither of these should remove them, they may be touched with some kind of caustic.

CHAPTER XLIII.

FOREIGN SUBSTANCES IN THE ŒSOPHAGUS AND TRACHEA OR WINDPIPE.

Substances sometimes become lodged in some portion of the œsophagus or throat, and, by pressing upon the trachea or windpipe, impede respiration; such as fish-bones, copper coins, &c.

When I attended the lectures of Dr. Stevens on surgery, I recollect he exhibited a preparation, showing how a pair of clasps had destroyed a child by one entering the trachea and the other the œsophagus, "and which might easily have been removed," said the professor, "had the situation of them been known at the time." From this circumstance, we may infer what ought to be done when first called to an accident of this nature. The tongue should be pressed down, and the finger introduced as far as possible, which will often enable a person to extract the article, even though it may not be seen. I removed a fish-bone from the throat of a person the other day, in this manner, in a few moments.

If a fish-bone, or pin, or needle can be seen in the posterior part of the

throat, it may be seized by a pair of tweezers and extracted. An emetic, by the spasmodic affection which it produces, often dislodges any substances of this kind.

If these means should fail, a small piece of sponge may be fastened to a piece of whalebone or wire, and, after having immersed it in water, slowly and cautiously introduced into the throat in a spiral-like manner. Dr Perkins, one of the graduates of our school, informed me, a few months since, that, by this simple instrument, he removed a fish-bone from the œsophagus of a patient.

Some use a probang, and force down the substance; but there is danger of driving some agents, such as needles, into the integuments, and thus causing serious, if not fatal, consequences. A lady in this city lost her life by this means a few years ago.

A physician in Canada obtained great celebrity, a few years ago, by a simple, but ingenious, contrivance, with which he extracted a substance from the œsophagus of a person. It consisted simply in tying a small piece of sponge to a piece of silk, and causing the person to swallow it; after which to drink warm tea; and, after waiting a short time for the sponge to expand by the absorption of the liquid, the end of the string was seized and cautiously drawn until the sponge came up, and with it the substance. This may be practised in some cases.

The late Dr. Nathan Smith, of New Haven, professor of surgery in the medical institution of Yale College, invented a very excellent instrument to extract coins from the œsophagus.

"I have twice been called upon," says he, "to remove coins from the throats of children. In both instances they had descended to near the inferior extremity of the œsophagus, where the passage is a little narrowed, just before entering the stomach. Of course, they were entirely beyond the reach of forceps, or any instrument which might be employed to grasp and thus withdraw them.

"The instrument which the exigencies of the case suggested, and with which I succeeded, was unlike anything that I have known to be employed for a similar purpose. A very few words will be sufficient to give an idea of it.

"The shaft of the instrument is a rod of whalebone, twenty inches in length, and of the size of a small quill. Half an inch from one extremity there are attached, at acute angles, like the barbs of an arrow, two wings of silver, an inch and a quarter in length, a quarter of an inch wide, and so thin as to be very elastic and flexible. The extremity, which stands off from the instrument, is convoluted, so as to render it blunt, and is a little curved inward toward the shaft of the instrument. The two wings are pinned to the shaft of the instrument, and may be continued over its extremity, which should terminate with a bead or obtuse point.

"From the position of the œsophagus between the trachea and spine, the faces of the coin present forward and back. When the instrument is thrust down the œsophagus, avoiding the glottis, as may be done without difficulty, and presenting the barbs one forward and the other back, it will pass either behind or before the coin, and the barb will spring beyond it, and catch it between itself and the shaft, when it may be very easily withdrawn. The manner in which the shaft is embraced by the œsophagus above, prevents its slipping off laterally. In both the cases alluded to I accomplished the extraction of the coin without any difficulty, and at the first trial. In the second case, after I had once raised the coin into the mouth, the child instantly swal

lowed it again, though I had almost seized it with my fingers. It returned to the same place, and I again withdrew it at the first trial.

"The barbs are made so thin that, should they catch in any of the follicles of the œsophagus, they would be everted sooner than rupture the membrane."

Sometimes substances get into the trachea or windpipe, and prove serious or fatal. When this happens, an emetic may first be given; and if this fails, and the substance still continues, it may be necessary to make an opening into the trachea; this has sometimes succeeded when other means have failed. A longitudinal or horizontal incision is made just below the thyroid cartilage, which constitutes the prominence in the throat.

I extracted a splinter from the throat of an infant, which was very deep, penetrated perpendicularly, and caused great distress. I could see the substance only when the infant cried, during which time I introduced a pair of scissors, closed them upon it, drew it out, when blood followed. How im-

ch information, though simple, to every person.

CHAPTER XLIV.

RICKETS. (*Rachitis.*)

This is a disease common to children, and caused by debility. It first shows itself in the glands; the bowels are enlarged; the face swells and becomes altered; the spine is bent in the form of the letter S; the flesh is flabby; the body wastes; the forehead is unusually prominent, and the neck small; the teeth are liable to drop out; the ribs become flattened; the breast-bone rises; joint-bones enlarged; and the bones so weak and soft that they are unable to support the body; stools unnatural. Sometimes deformity of the female pelvis, and other parts, follow.

Treatment.—With respect to the treatment of these cases, you will observe the same general principles which I have laid down for scrofula.

The joints, or parts affected, may be bathed with *salt* and *water* and the *rheumatic liquid;* afterward a *strengthening plaster* applied. The *alterative syrup* should be freely given, and continued a length of time. The bowels must be kept regular. Bathing in a tepid salt water bath will also aid in the cure. I have found that a syrup made of *comfrey* and *Solomon's seal* is very serviceable in this complaint.

Some time ago I cured two very bad cases of rickets by pursuing this method. Friction on the parts is also useful. Take exercise, pure air, and nutritious diet.

CHAPTER XLV.

DOW-WORM OR SCALD HEAD (*Tinea Capitis.*)

This disease consists in a chronic inflammation of the skin of the head, productive of a secretion of matter peculiar in its nature, and capable of propagating the complaint, if applied to the head of a healthy subject. At first the eruption is confined to only a small portion of the head; but by

degrees its acrimony is extended to the neighbouring parts, and at length the whole of the scalp is eroded and beset with a scabby eruption.

Children principally are affected with it. It may arise from uncleanliness, the want of a due proportion of wholesome nutritive food, and possibly from bad nursing: at any rate, these will very much aggravate the disease. In many instances it is propagated by contagion, either by using a comb imbued with the matter from the head of a person labouring under it, or by putting on his hat or cap.

Treatment.—The head, or the part affected, should be first well washed with soap and water, and then the *brown ointment* applied: let this be rubbed upon the affected parts once a day. Give the child cream of tartar and sulphur, mixed in molasses, sufficient to act lightly upon the bowels; or other physic, as *mandrake*. This course soon cures it.

Professor Spielman, late Professor of Medicine in the University of Strasburgh, France, uses the following ointment, in this disease, with success: Take of rose ointment, one ounce; white precipitate, one drachm; mix well. Wash with soap and water.

Dr. King highly recommends the following: Chamber ley, (urine,) two quarts; lard, half a pound; tar, one ounce; boil all together for two hours; when blood-warm strain; add slowly two ounces of flour of sulphur; let it cool; then strain. Wash the parts affected with the liquid; and, when evaporated, wash with the ointment. Good for scald head and other eruptions.

Also, simmer a decoction of elder with a little cream till an ointment is formed, and apply daily: Take sulphur internally. This is said to cure always.

CHAPTER XLVI.

RINGWORM.

This is a cutaneous disease: it shows itself in small red pimples, which break out in a circular form, and contain a thin acrid fluid. When the body is heated by exercise these itch intolerably, and, upon being scratched, discharge their contents, which, by falling on the neighbouring parts, spread the disease to a considerable degree. The original size of the circle formed by the pimples is usually about that of a sixpenny piece; but in process of time it will become, by neglect, as large as the palm of the hand.

In some cases the disease is so universal that the habit becomes tainted, the skin puts on a leprous appearance, is much disfigured with blotches, and the unhappy patient enjoys not a moment's ease, from the intolerable itching and painful excoriations.

Treatment.—Wash with the tincture of *celandine* twice a day, and then apply an ointment of the same. If these fail, use the *brown* or *herpetic ointment* An ointment of the *yellow dock* is also good.

The following is highly recommended, by Dr. Sidney Bowne, for *ringworm*, *dow-worm*, and *barbers' itch*: Take one ounce of Barbadoes tar, mutton tallow size of a common nutmeg, one-half of an even tea-spoonful of fine ground pepper; simmer together a few minutes, let it stand till nearly cold, and then stir in sulphur sufficient to form a soft ointment. It has cured in a number of instances, and no failure known where it has been tried. Wash the parts three times a day with Castile soap-suds, and keep them covered.

CHAPTER XLVII.

ITCH. (*Psora.*)

The itch is evidently confined to the skin, and rarely affects the general system, however great its irritation. It arises most usually from infection, communicated by coming into immediate contact with the body of a person already affected, or by wearing the same clothes, or lying in the same bed that he has; but it is sometimes produced by unwholesome food, bad air, and a neglect of cleanliness.

The itch shows itself in small pimples about the fingers, wrists, hams, and waist, which, after a short time, become so many pustules, and are attended with such an itching as to occasion a constant desire to scratch. When they break, the acrid fluid which they contained falls on the neighbouring parts, and thereby spreads the disease over almost the whole body, if proper remedies are not used to check its progress. Where the pustules are very large, and attended with much inflammation, they are apt to run into biles. The animalculæ which are seen in the pustules are the effect, not the cause, of them; as all other stagnating fluids abound with microscopic animals.

Treatment.—Give internally the following: Take *flour of sulphur*, two parts; *cream of tartar*, one part: mix; of this powder, to an adult, give a tea-spoonful in molasses morning and night. Apply the *brown* or *herpetic ointment* whenever there is itching; also the *yellow dock ointment*. Should these fail, apply the following: Take *sulphur vivum*, (*native sulphur*,) pulverized, half an ounce; *lard*, two ounces; melt the lard, and stir in this powder until it is cold: let the parts be bathed two or three times a day with this ointment. This treatment will cure this loathsome disease in a few days, without the necessity of even changing the clothes, or producing any offensive effluvia.

CHAPTER XLVIII.

COLLECTIONS OF MATTER IN THE ANTRUM OF HIGHMORE.

Symptoms.—Pain extending upward to the eyes, nose, and ears; swelling and redness of the integuments over the part; frequently, on a sudden, and especially upon rising from bed, a discharge of matter issues from the nose, which affords a relief to the symptoms until the cavity becomes again distended.

Treatment.—Evacuating the matter by means of a puncture made through the alveolus with a probe or sharp-pointed instrument, and, after the contents of the cavity have been thus emptied, preventing the sides of the opening from closing, by means of a tent; and occasionally injecting tincture of myrrh, or some astringent fluid.

Generally, after matter has formed, it will find an exit, or may be evacuated by a probe, without extracting the molar tooth, as some recommend

CHAPTER. XLIX.

PSOAS AND LUMBAR ABSCESSES.

By these terms are understood chronic collections of matter, which form in the cellular substance of the loins.

If the disease forms on the side of the spine instead of the forepart, it is termed a lumbar abscess, instead of psoas. The origin of psoas abscess is not, in general, attended with any symptoms of acute pain and inflammation, nor with any febrile disturbance of the constitution. Previous to the appearance of any other symptom, the patient long feels an unaccountable sense of weakness across the loins, accompanied by an obtuse, yet distressing, pain; but this, so far from leading to a suspicion of the nature of the disease, is usually regarded as rheumatic. The matter is formed slowly and imperceptibly, and occasions at first no manifest swelling nor fluctuation. When the matter has collected it spreads until it reaches the origin of the psoas muscle, which passes into ulceration, and forms a bag, surrounded by a complete ring.

The swelling, when in the groin, sometimes insinuates itself beneath the femoral fascia; in other instances it descends as far as the knee, where it forms a prominent swelling: sometimes it makes its way downward into the pelvis, and occasions a swelling in the neighbourhood of the anus; at other times it tends toward the loins and sacrum, giving rise to a swelling exactly in the place where abscesses often make their appearance in the disease of the hip-joint. In a few instances the matter causes a swelling in the vicinity of the spine; and, less frequently still, it makes its way through the abdominal muscles, and produces a tumour at some part of the abdomen.

Causes.—The causes of a psoas abscess are frequently involved in great obscurity. It is supposed sometimes to arise from injury done to the back and loins, by severe twists, blows, &c.; at other times to proceed from sudden exposure to cold after severe exercise, particularly in scrofulous habits

Treatment.—If there is inflammation and pain, steam the part, and afterward apply the slippery elm poultice. Continue this treatment until the abscess breaks; and, after the matter is evacuated, let it be kept open and the discharge of matter facilitated. After a few days inject in Castile soap and water, and, subsequently, liquids more stimulating, such as weak ley, tincture of gum myrrh, &c.; they promote the adhesive process in the interior of the abscess, glue its sides together, promote a healthy secretion and the healing process. The black salve may be applied to the ulcer.

There being usually much constitutional disturbance, particularly after it suppurates, such as debility, loss of appetite, &c., it will be necessary to give such medicines as will counteract these symptoms.

CHAPTER L.

SPRAINS.

Bruises.—By this term we understand an injury or contusion of some part of the body, without laceration or breaking the skin. A bruise is often very painful, much swelled, and turns the skin black or purple.

Treatment.—The best application is *wormwood leaves*, simmered in vinegar to extract the strength, with a little salt added, to be applied cold or warm, as agrees best; nothing so soon reduces the swelling. The *rheumatic liquid* is also a good application. After the above has been used apply a *strengthening plaster*. Salt and tallow, mixed, will prevent the skin from turning black.

CHAPTER LI.

DISEASE OF THE SPINE. (*Spinal Irritation.*)

Some diseases originate in the spinal column, and affect it primarily; and, as the nerves lead from it to every organ and part of the system, it follows that in almost every complaint it is more or less diseased *symptomatically:* when this is the case, by pressing the thumb hard on the sides of, and between the prominences of the spine, a tenderness or pain will be felt; when this is the case, and any complaint appears to depend upon spinal irritation, let the whole length of it be bathed often with the *rheumatic liquid*. After a few days apply the following plaster, which will cause more or less irritation, and probably a discharge; and if too much, lay it aside for a short time, or apply it to a contiguous part. Direct the attention also to the liver, stomach, and bowels. This course will be found very efficacious.

Irritating Plaster.—Take of May-apple, or *mandrake-root*, *blood-root*, *poke-root*, *Indian* or *wild turnip*, equal parts; pulverize fine, and mix the powders with *tar*, the latter to be boiled half an hour before adding the powders; incorporate and work well together, and form a plaster; to be spread on soft leather.

The whole surface may be bathed daily with *salt* and *water;* and, indeed, in all other cases where the bones are affected.

CHAPTER LII.

BURNS AND SCALDS.

Apply a poultice of the *elm bark* and *milk:* when it has been spread upon linen or muslin, let it be covered with olive or sweet oil. The poultice should not be suffered to get dry, but must be changed often. After the pain and inflammation have been removed, apply the black plaster or salve; sometimes it is necessary to apply a little lint previously When

the burn degenerates into an ulcer, and becomes difficult to heal in consequence of fungous flesh, it must be touched with mild *escharotics*, the same as any common sore.

Sometimes hot water or liquids are taken into the mouth or swallowed: when this happens, let it be gargled with borax water, and a mucilage of slippery elm be freely drank; give the patient occasionally a portion of *olive oil*.

For very slight burns the black salve alone is sufficient to remove the pain and inflammation.

This simple treatment I have found strikingly successful in all kinds of burns and scalds, and in their severest stages. The elm poultice, in the course of a few hours, completely changes the appearance of the burn; it removes the inflammation, and, from a state of extreme redness or high colour, changes the parts to perfect whiteness. At the same time the pain and swelling speedily subside.

All other applications will bear no comparison with this mode of treatment. On one occasion a child fell backward into a large kettle of boiling water, and not only burnt itself severely, but actually roasted or disorganized the parts from the back nearly to the feet. A poultice of slippery elm bark and olive oil alone, in a short space of time, removed the inflammation and acute sufferings of the patient, and the child recovered, which, to all acquainted with the accident, seemed almost incredible. The deep and extensive scars left are frightful. The practice is equally successful in all cases of the kind.

Attend to any particular symptoms that may arise, as fever, costiveness, &c. When it is inconvenient to obtain the *elm bark*, potatoes, scraped fine, make a good application. *Cold water* is also excellent to apply, is always at hand, and can be used before any other means can be procured; linen or muslin cloths may be wet with it, applied, and often renewed. The relief is immediate and effectual, and the part is kept from blistering. It is not advisable to apply water too cold to the body, but may be applied cold to the extremities. The feelings of the patient, however, must be consulted. *Stramonium ointment* is also good to apply.

CHAPTER LIII.

SUSPENDED ANIMATION, BY HANGING, DROWNING, SUFFOCATION, OR EXPOSURE TO INTENSE COLD.

Suspended Animation from Freezing.—A person was senseless and almost lifeless from cold; he was immediately plunged into a barrel of cold water, up to the neck, then taken out, dried well, and rubbed with flannels; and, although cold (to use the expression of a bystander) as ice, warmth gradually returned; ice formed on the body in scales, as it was drawn from the surface by the cold water. As soon as anything could be introduced internally, Cayenne pepper and brandy were given in large quantities. When reaction took place there was great soreness of the flesh, with excessive pain, fever, &c. It was nearly two hours before he recovered.

Drowning.—When animation has been suspended by drowning or immer-

sion under water, many of the same means recommended are here proper. The person must be taken to a suitable place, the wet clothes taken off, and the body immediately rubbed dry with warm flannels. The face is to be turned somewhat downward, to give exit to any water that may have been introduced into the lungs; but it should not be rolled over a barrel, or roughly handled, as is sometimes practised. An injection may be given, the feet bathed in warm water, and constant friction kept up for a long time. Bricks and stones may be heated, and covered with cloths wet with vinegar, and applied to the feet, legs, and sides; the windows should be opened, to admit fresh air. The lungs may also be inflated, by blowing into them with the mouth, or by means of a pair of bellows, while an assistant gently presses the breast up and down in imitation of natural breathing or respiration. When signs of life appear, and the person can swallow, a little lavender compound and spirits of hartshorn may be given.

The means to be used for the recovery of persons suddenly apparently deprived of life, are nearly the same in all cases; such as lightning, poisonous gases, &c.: dash a pail of water on the person, then rub dry with flannel, and use friction.

CHAPTER LIV.

HYDROPHOBIA, OR CANINE MADNESS.

Cause.—In the human species it is always the result of a specific virus or contagion, derived from the bite of an animal labouring under the disease. The poison appears to be exclusively attached to the saliva, by the fact of the disease being produced by wounds inflicted with the teeth of a rabid animal. It may be communicated by bringing the contagious virus in contact with a wounded surface. The bite of a rabid animal is not always followed by hydrophobia: when the person is bitten through clothes, particularly woollen, the virus is frequently wiped from the teeth before they enter the skin; from this cause we sometimes find only one or two out of a number bitten by the same animal become rabid.

Symptoms.—At some uncertain period after the bite a painful tension, redness, and heat attack the part bitten, and at the same time darting pains and spasms arise in it; the patient is seized with languor, lassitude, anxiety, frequent sighing, and love of solitude; twitching of the tendons, and horrible dreams torment him. These symptoms continue for some time, and then become worse; a great aversion to, and dread of, any kind of liquid supervenes, inasmuch as the sight of it causes spasms in the throat; a frothy saliva is frequently ejected, and during the paroxysms a desire for biting attends; respiration hurried, gasping convulsions, and death.

Treatment.—The wound or bite should be cupped as soon as possible; after which apply the caustic potash until an eschar is formed; then apply a yeast poultice, and keep up a discharge as long as possible. The patient should now take a strong infusion or decoction of scullcap through the day; mandrake physic once a week. If this does not prevent the disease, and should symptoms of hydrophobia appear, lobelia emetics must be given every other day. Perspiration must be promoted by the steam or vapour bath.

CHAPTER. LV.

POISONS—MINERAL AND VEGETABLE.

Since so many cases of poisoning occur, how important that every one should have some information respecting antidotes to them, as the only prospect of affording benefit is by administering antidotes immediately after poisons have been swallowed.

1st. *Laudanum or Opium, and all other Narcotics.*—I have been called to four persons, within a few years, who took laudanum to destroy themselves; I gave in each case a double portion of our *common emetic*, with plenty of herb tea, and a short time after, say fifteen minutes, a wine glassful of *lamp oil*. If this does not operate, repeat in twenty or thirty minutes; the person to be kept walking. Copious vomiting soon took place, and restored every one. This course may be pursued where any kind of poison has been taken into the stomach. As a substitute for the above emetic, give a large tea-spoonful of pulverized *black mustard*, mixed with water; it operates promptly, and is perfectly safe.

When there is suspicion, or symptoms of any kind, of poison having been taken by accident or design, administer immediately large quantities of milk, then give an emetic, and repeat till free vomiting ensues; also lamp oil, as above.

Treatment.—For acids, give vinegar and water; for alkalies, give vinegar and lemon juice, to be accompanied with the free use of the mucilage of slippery elm bark; after vomiting has been excited a wine glassful of sweet oil may be administered: it will be necessary at the same time to administer injections or clysters also, composed of equal parts of the mucilage of elm bark and milk, sweetened with molasses, and a gill of olive oil added; a quart of this must be introduced every half hour. Where these means fail, if a stomach pump be procured and used. I consider lobelia, in the form of tincture or powder, to be a good antidote to all kinds of vegetable poisons: I prescribed it to one woman, who had taken three large opium pills, (by mistake;) when this article was administered, it soon removed all unfavourable symptoms. Vinegar has been often recommended for laudanum, but I know not that it is of much use. The person must be aroused, and kept awake and in motion as much as possible, by shaking and moving him about. But the greatest reliance must be placed upon the speedy evacuation of the stomach by emetics.

A late writer states that severe whipping has had the desired effect, by the irritation produced. Rather a severe remedy! In cases of poison by fungi and other narcotic plants, a similar course of treatment is required.

Where vomiting and other symptoms continue, an ounce of the bicarbonate of potash may be dissolved in two quarts of water, and a tea-cupful drank frequently; fomentations to the stomach and bowels will also prove beneficial. Lime water is highly recommended by Orfila as an antidote to arsenic.

The same writer states that, of all antidotes to the poison of the *corrosive sublimate*, he has found the white of an egg, dissolved in water, to be the most powerful and efficacious; it must be diluted with water before it is given. In cases where persons have been poisoned by taking verdigris,

emetics must first be given, and afterward a solution of sal æratus (bicarbonate of potash) should be freely taken, as directed above.

For any of the salts of copper, the same remedy as the last.

Sugar is said to be an excellent antidote to verdigris. The effects of lead must be remedied by the use of castor oil and injections.

Salt and water counteract the corrosive effects of the nitrate of silver or *lunar caustic*, and make the best antidote. A person suffering under the deleterious effects of this, should drink several glasses of it, in the proportion of a table-spoonful of the salt to two pints of water. Vomiting will ensue and the symptoms diminish.

Milk is the best antidote of muriate of tin, by which it is completely coagulated. The coagulum contains muriatic acid and oxyde of tin, which are not deleterious.

An over-dose of tartarized antimony sometimes produces severe consequences. In such cases our chief dependence is to be placed upon mucilaginous and diluent drinks to speedily remove the medicine from the stomach; and, when this is done, opium, and perhaps mustard plasters, may be of some service.

In cases where nothing can be administered by the mouth, *lobelia injections* may be given.

For oil of vitriol, the best antidote is large doses of magnesia and water, or, what is still better, equal parts of soft soap and water. For aquafortis, same remedy as last. For oxalic acid, (this resembles Epsom salts, and is often used in bedbug poisons,) chalk and water renders it perfectly inert, forming an insoluble salt of lime: magnesia is also a good antidote. For tarter emetic in poisonous doses, Peruvian bark and water, it is stated, render it perfectly harmless; if the bark cannot be procured, use a strong decoction of tea until it can. For saltpetre, (which also is sometimes taken for salts,) a prompt emetic of *mustard* and water; afterward mucilages and small doses of laudanum. For lunar caustic, (the principal ingredient in indelible ink,) common salt forms an invaluable antidote, which is harmless.

For corrosive sublimate, metallic substances, mercury, verdigris, [illegible] ad, sulphuric acid, and arsenic, white of egg may be given, and then lime water or an emetic, with plenty of water. In all alarming cases, as before directed, give immediately a double portion of the emetic powders, with the addition of a little linseed or sweet oil; in place of this give flour of mustard. For arsenic, three or four cases are reported as having been cured by doses of magnesia.

Poison Vine.—Both men and animals are severely poisoned by a vegetable called the poison vine, or mercury, which runs upon trees, fences, &c. It causes great heat, itching pain, swelling, pain, and inflammation, and gives rise to unpleasant and serious symptoms.

I have found the following an excellent remedy for this kind of poison, both for man and beast:

1st. Apply a wash to the parts, made by simmering the bark of elder in buttermilk, every two hours; after which apply a little sweet oil, and then, if practicable, a poultice made of the slippery elm bark: give occasionally a dose of sweet oil.

A horse of mine, a short time since, became so poisoned by this vine that his eyes were entirely closed; this remedy removed the complaint in about twenty-four hours. *Elder, brown*, and *celandine ointments* may be applied; also a weak solution of salt and water.

PART FIFTH.

MIDWIFERY.

CONCEPTION, PREGNANCY, AND DISEASES OF WOMEN AND CHILDREN

INTRODUCTORY REMARKS.

Says the author of a Treatise entitled the "Mother's Book," "Every intelligent observer must have remarked the slavery in which custom and fashion bind the human race, and the mass of restrictions which surround those in advanced stations in civilized life. We hear of one class spoken of as the necessitous class; but there is no class more necessitous than the highest; no people on the face of the earth so much under the dominion of the word '*must*' as the fashionable world. They *must* regulate every movement by what the professional men choose to fix as law, or they may and will be pointed at as singular characters. In matters of the greatest importance how is this exemplified, and particularly in the practice of midwifery.

"I am fully aware of the difficulty of finding language sufficiently explicit to convey the necessary information to enable a person to attempt this practice, without some previous personal experience. To unlearn more than to learn is, however, one of the requisites to become a useful assistant to a female at this important period. Midwifery appears at this time to be altogether a matter of speculation with the medical faculty, as if their assistance was absolutely necessary; and that it is a matter of profit to them is evidenced by their exorbitant charges for attendance. This tax falls extremely heavy on the industrious classes, and it often is not the greatest grievance they have to bear; they are often, alas! deprived of their wives and offspring, by the ignorant and unnatural, falsely called scientific, practices resorted to by male practitioners.

"Formerly the practice of midwifery was in the hands of experienced females, who, by attending to the personal wants of their patients, and leaving nature to perform her own work, considered they did all really required. Scarcely was an instance known in those days of a woman dying in child-bed, and the loss of a child was a rare circumstance; but in the present time it is no unusual occurrence. There must be some cause for this difference, and I cannot account for it in any other way than the unskilful treatment females experience from the doctors, who have monopolized the practice. In many sections of this country, until this few years, families were brought into the world without the consultation of the *doctor*. A midwife was all that was thought necessary, and the instances were very rare where they were not successful. They used but little art, and afforded only such assistance as nature required; gave herb tea to excite perspiration and to allay nervous irritation; and were content with a moderate compensation for their services. I trust these remarks may be the means of awakening reflection

in the minds of the fair sex, on this to them the most important circumstance in life, their management in pregnancy and child-bearing. It is preposterous that females, in that most delicate and critical period, cannot rely on the assistance of their own sex. A woman, on the ground of experience in such matters, must be far superior, as she must have personal experience, such as a man never can or will acquire. It is a practice of late invention for men to assist nature in parturition; and the plea used for their employment was, that in difficult and monstrous births they had greater nerve, that is, less feeling for the sufferings of those in travail, than women, and that, consequently, they were more useful where manual assistance was required. This was the plausible reason assigned for their first employment; but it is contrary to common observation, and an erroneous opinion, that females are ineligible. Medical men tell you in their works, and it is well known, that it is a difficult task for a man to assist at a labour with decency; and if that is the case, it is obvious a female must be the proper assistant at this period. No one can read the awfully numerous cases of deliveries by instruments used by the man-midwife, without feeling a wish at least to correct the barbarous practice of such mock-professional science, and substituting in lieu a rational practice.

"I have witnessed numerous instances, and many others upon record have satisfied me, that the vegetable medicines are all the medicines required during pregnancy, whether a fulness or determination of blood in the early stages, accompanied with nausea, or costiveness, or, as is sometimes the case, relaxedness in the later stages. Experience teaches that proper regimen and gentle cleansing medicines are the natural and reasonable method to keep the blood in healthy action, and the mind temperate and calm. A contented mind is a prelude to a safe delivery."

"Formerly it would have been considered a violation of decency for a man to be consulted on the occasion. The company of an experienced matron was all that was required to assist a female at this period, as nature, never deficient, or rarely so, has made ample provision for the birth of the child. Dr. Buchan, a member of the Royal College of Physicians in Edinburgh, and who, in fifty years' practice, endeavoured to extirpate some of the craft and mystery from medical subjects, especially in midwifery, makes this assertion: 'Nature, if left to herself, will seldom fail to expel the fœtus;' so that, according to the doctor, it is to *not* leaving nature to herself she fails to expel the child from the womb.

"The attendance of one female on another is all that is required in many nations at the present day; and even in one of the most difficult of cases, one that has been shown about as a wonder, I mean the Siamese twins, the phenomena were brought into the world by female aid only, without instruments. Ancient historians only mention the assistance of females; and I will just call to remembrance the Old Testament account, that, when Pharoah ordered the nurses to destroy the Israelitish infants, it was to female kindness they owed their lives, and it was female ingenuity prompted them to excuse themselves from the anger of the king, by referring to the *well known quick and easy delivery the Hebrew females were favoured with.* So that a saving of life and an easy delivery were the accompaniments of employing females. The custom of employing females was not confined to Egypt or Palestine; THERE IS NOT ON RECORD IN HISTORY ANY ACCOUNT OF MALES BEING EMPLOYED AS MIDWIVES. The consequence of their employment has been a number of deformed beings, who are disfigured by the indecent and unnatural means used to bring them into the world; and the mother, if she

escapes with life, suffers a long and protracted weakness by their improper treatment.

"It is very important to keep up the strength of the female as she advances in pregnancy, so that at the time of labour she may be in possession of all her powers. To effect this, she should use proper diet and exercise, and medicines from time to time, as they will carry off the humours which weaken the system; they will also open the pores and keep the body in a good state of perspiration during labour, and prevent severe after-pains. The doctors give opium to stupify, and by bleeding weaken the frame and deaden the feelings, instead of such medicines as invigorate the faculties of body and mind, to increase the efforts nature is called upon to perform. I will relate a case to show this point: 'A woman was taken in travail, and a doctor was sent for: when he came the prospect was, she would be delivered in *two hours;* he gave her some medicine, which caused vomiting and turned the pains to the stomach; she continued in this situation for *twelve hours*. When her strength was nearly gone, he then bled her, and gave her so much opium as to cause such a stupor, that it required all the exertions of the women to keep the breath of life in her throughout the night; in the morning she remained weak, and so continued till the afternoon, when she was delivered with instruments. The child was dead, and the woman continued weak for six months.' Many instances might be given of the bad success of the bleeding and opium treatment, instead of strengthening the system by suitable medicines. If married men were to persuade their wives to pursue the course laid down in this work, they would find it more proper and safe than to trust them in the hands of the doctors. Often they are young and inexperienced, and their cruel and harsh treatment would induce the husband to forcibly expel them, were they permitted to be present; but this is not allowed for that reason.

"So long as there is no obstruction or hindrance to the operations of nature, she performs her work with unerring precision. In case of any obstruction, a female may require assistance, but never more than females can give. Obstructions will be very rare where the practice now recommended is pursued. Sufficient can be shown to satisfy the most skeptical that men are inefficient as midwives. It is not by a familiarity with rules alone that a knowledge of the practice of midwifery is to be obtained. It is not sufficient to have a knowledge of, and exact acquaintance with, the structure, situation, and functions of the different organs which constitute the living body. It is not sufficient to have surmounted the disgust, difficulty, and fatigue which must necessarily be endured by such as investigate the cold remains of mortality, and with a view to learn from the dead body the structure of the living. It is not this that makes a successful assistant in labour, or in the practice of medicine. This study on the dead has often led to scientific operations on the living, to the prejudice of both mother and child. This scientific parade and useless number of attendants have been more injurious than no attention at all. This was the case of the Princess Charlotte, of England, wife of Prince Leopold, now king of the Belgians. It was in a measure the indecent presence of the ministers of state, who, with the royal physicians, are obliged by law to be present at the accouchement of a royal princess, that brought on that anxiety of mind and excessive fatigue, followed by hæmorrhage and convulsions, and which terminated in a fatal syncope, which all their united skill, it appears, could neither prevent nor cure. I quote this case, because the rank of the sufferer made it a matter of public notoriety, although far from a solitary instance of females who have died from

the excitement and distress occasioned by the unseemly presence of too many attendants.

"The employment of men as midwives, in addition to the reasons previously stated, is tolerated on the ground that it is difficult to find females who have studied the subject sufficiently to acquit themselves with propriety. This may be an evil, but it is not without a remedy. When females have a sufficient inducement in the shape of remuneration, it will cause many intelligent females better qualified to follow midwifery as a profession, who are now deterred by the fact, that the male practitioner receives the greater part of the emolument, while indifferent wages and the drudgery part only are the lot of the female.

"The essential requisites in a female practitioner are, patience, cleanliness, attention, and watchfulness, accompanied with experience and that presence of mind which are peculiar to a well-regulated female. The work must be left to nature. Labour is a natural act. It does not require the interference of art for its promotion or accomplishment. We have been told of the improvements made in this branch of medical science; but it is notorious that, as the science of anatomy advanced to what is called its present splendid developement, labours were taught by the professors to be more difficult, and needed mechanical assistance to perfect. But this is easily refuted by fact, by referring the reader to the quick and very easy deliveries which the Indians in this country are well known to have; and that, when the pangs of parturition come on them, they fly to solitude and retirement, and refuse the assistance of either male or female; and a speedy labour and a quick return to convalescence are the result of leaving nature to her own unassisted operation. This is also the course pursued by the females at the south, and, indeed, in every part of the globe where what the doctors call great ignorance prevails. But they are also in happy ignorance of the separation of the bones of the pelvis, the inversion of the uterus, and the numerous excruciating tortures and fatal results which have followed the unnecessary deliveries by instruments and the hasty efforts of male practitioners. The Cæsarian operation is unknown to them, and those useless and cruel experiments which have been brought into practice; because the powers of nature were not understood, and the powers of art too much relied upon.

"One of the great difficulties in labour appears to be a contracted or deformed pelvis; but this rarely occurs in this country; and I will quote a highly respectable authority on the subject, I mean W. P. Dewees, M.D. In his 'System of Midwifery' he says, page 31, 'I believe that the united experience of all the American practitioners would not have led to a correct conclusion on the subject; as the occurrence of deformity of the pelvis in this country is so very rare, as never to have been encountered by some practitioners of pretty extensive experience. As far as regards my own, I must declare I have not met with extreme deformity in American women three times in my life.' So that this is a case of so rare occurrence as seldom to have come under the notice of men of extensive practice. Had this doctrine been understood by practitioners, we should not have heard of the numerous instances of instruments being applied to separate the bones of the pelvis, which is followed by a melancholy train of evils.

"And now, reader, if I have succeeded in awakening your attention and enlisting your feelings on a subject important to you, to me, to all our fellow-creatures. Reader! if you be a woman, forget that I am a man; if a man, listen to me as you would to a brother. Let us converse, not as men, not as women, but as human beings, with common interests, instincts, wants, weak-

nesses. Let us converse without prejudice and without passion; let the poet's exhortation be applied to the investigation:

> "'Retire! the world shut out; thy thoughts call home:
> Imagination's airy wing repress.
> Lock up thy senses; let no passion stir;
> Wake all to reason: let her reign alone.'

"I may invoke your aid in carrying out the great principles I advocate, namely, of ensuring your greater safety at the hour of trial, and the future health and happiness of yourselves and little ones; and the banishment from your bed-sides of that anomaly so offensive to the refined delicacy of your natures, the *man-midwife*, and the substitution of a qualified female in his place. Well assured am I, from a long intercourse with my fellow-men, that if you will but allow your own feelings of self-respect to exercise their due influence, and induce you to proclaim your reluctance (rather your abhorrence) to have the privacy of such sacred moments invaded by the disgusting presence of a *strange man*, (except on extraordinary occasions,) your husbands will be foremost to second you in your resolutions and in securing your welfare, and will not fail to appreciate, by their increased regard for you, the aspirations of such true delicacy.

Dr. A. McNair has the following excellent remarks on the subject of midwifery: He says; "All that is proper to be done in a case of natural labour, from its commencement to its termination, will suggest itself to any person of common understanding; and I have long laboured under the conviction that the office of attending women in their confinement should be intrusted to prudent females. There is not, according to my experience, and the reports of many of the most eminent surgeons, more than one case in three thousand that requires the least assistance. I am aware, however, that there are a few crafty physicians who attempt, and often succeed, in causing the distressed and alarmed female to believe that it would be altogether impossible for her to get over her troubles without their assistance; and, for the purpose of making it appear that their services are absolutely necessary, they will be continually interfering with their instrument when there is not the least occasion for it. How blind, deluded, females are duped and imposed upon by interested and unprincipled doctors. There is no excuse for such ignorance, and no wonder such a curse attends it.

"Physicians do not give nature an opportunity to perform her work. They are averse to sit ten or twelve hours, or more, as is often necessary. This would be consuming too much time; and, therefore, when called to a female, delivery must be accomplished as soon as possible. There is no doubt in my mind (says Dr. McNair) but that one-half of the women attended by these men are delivered before the proper period; and that this is the reason why we see so many deformed children, and meet with so many females who have incurable complaints. If the business was intrusted to well-instructed and experienced females or midwives, they would give more time, and nature would have an opportunity to do its own work; we should not hear of so many lives being lost, both of parent and child, nor of so many diseases entailed by bad management. If there should happen to be a difficult case, an experienced doctor could be called, who would be much more likely to succeed than in the case of the female having been injured by the untimely or instrumental interference of some male practitioner."

I was lately called to meet in consultation with a physician in the country, in a case of parturition; and in my absence he bored a hole in the

child's head, let out the brains, and with a hook drew out the child and all, when the pains and presentation were natural, and strength excellent. A little more time and patience were only wanted to accomplish delivery.

The following is an extract of a letter from Mrs. Ruth Stebbins, a highly respectable, aged, pious, and talented midwife, of Westfield, Mass. She has devoted most of her life in endeavouring to wrest midwifery from men, and to introduce it among females. Mrs. Stebbins has made a donation to the author of this work, to promote the cause; at one time *twenty dollars*, and at another *one hundred;* and has also stated to him that she should leave a legacy, still farther to disseminate this branch of reform. Who is sufficiently disinterested and benevolent as *to go and do likewise?*

"I rejoice that you have commenced the publication of the abridgment of your reformed practice, and wish I was able to assist you much in the sale of the work; but my advanced age and ill health, with the care of a sick husband, forbid my doing much; however, I will take one copy for myself, and would do so if it contained nothing of interest to me, except on the few pages which you have kindly sent me; they are now going the rounds. Perhaps by and by, when the earth is warmed by the returning sun, I may again visit among my friends; and, if I am thus favoured, all my influence will be most cheerfully devoted to the sale of your abridgment: I desire that the public may rightly estimate its real worth, and that every family may avail themselves of a copy, and thus, for a few dollars, become their own physician, and likewise enjoy the benefit of your reformed practice. I do ardently wish that this opportunity for increasing in knowledge may not indifferently pass by, and the people left to choose darkness rather than light. Is it not surprising that an intelligent people should so long hold on to the old system, which has slain its thousands? It is but three years since it became my painful duty to close the eyes of a beautiful young lady, sixteen years of age—one, too, whom I loved as my own soul, and had carried in my bosom from her cradle to her untimely grave—a victim to that deadly poison, *calomel:* there can be no mistake about it, for she was only a little drooping when the doctor commenced his course with her; she had a good appetite, was about the house, and walked out as far as the garden, when the docter dealt out his poison: the mother of the patient, who is my adopted daughter, and had embraced my sentiments in these points, raised her warning voice against the doctor's course, saying, 'I must part with my daughter as sure as she follows your directions:' the father was in favour of the doctor, and in little more than one week she took her flight from earth. Calomel brought on a discharge which could not be checked; she frequently called for toast and tea, but was forbid the favour of any kind of nourishment upon the pain of death. I did not see her until the day before she expired; she had no cough, nor any other consumptive symptom. In the course of the same week several other young people in the neighbourhood died in the same manner; *what killed them?* it was not vegetable remedies. I regret that there are so many among my female friends who will cast a mantle of charity over the most daring and cruel *mal-practice* of their family physicians, and at the same time expose to censure, and condemn without mercy, the most trifling misfortunes attending female practice. Now, can the ladies shut their eyes to the following fact, and refuse to hear its warning voice, even were there no other case of the kind known on earth? In Massachusetts, some twenty miles from this place, and perhaps four years since, a lady was taken in travail with her first child; she called the physician of her choice, and one who was educated according to the rules of the old school; he soon

informed her that nature was in course, and circumstances appeared favourable: however, within two hours he apprehended great danger, and warned the friends that neither mother nor child could be saved without the aid of instruments; of course he was permitted to apply them, and thus relieve nature from any part of the burden; she was not suffered to wait for one natural pain from the time instruments were applied until the mangled and slaughtered babe was *dragged* into the world with more force than the strength of one man, as the doctor prayed, for God's sake, that one of the women present would assist him, which was granted; and with such violence did they exert their strength, that the child was hurled into the middle of the room. The grandmother, on beholding its lacerated, bleeding scalp, exclaimed, 'O, dreadful sight!' The woman was much injured, as the instruments slipped off three times; and she informed me that she positively knew the doctor thrust them into a portion of the flesh, which was afterward proved. Five weeks she lay with but little hope of life; then she recovered. When again she became pregnant, she began to read and reason on the subject, until she became so much enlightened and convinced of her error, as to renounce her prepossessions in favour of men operators; and there being in town a good midwife, she made up her mind to employ her in the hour of parturition, and leave the event with Him who hath promised salvation to all those who continue in faith, charity, holiness, and sobriety; and blessed be the God of all grace, when the hour arrived the promise was verified; she brought forth a living child without any professional aid, and with comparatively little anxiety, as there was no time for frightful foreboding, or the retarding influence of interfering practitioners; and in this instance she recovered her health in a few days, though she must always suffer from the bad effects of the doctor's shameful mal-practice. I will only add, that all this work of torture and death was accomplished within eight hours after the doctor arrived: and thus I leave this woman, and would just hint that, soon after her first case, a neighbour of hers, in the like situation, employed the same doctor, and met the same fate. On a second occasion of this kind this lady, not 'having learned righteousness by the things which she had suffered,' employed again her beloved physician; again instruments were applied, and, after a most distressing scene, another slaughtered child was presented to the disappointed and grieved parents. Some time after this I saw this lady, who was again numbering her weeks; I endeavoured to impart unto her needful instruction, which inspired her with more courage, and, when the hour came, she confided in nature, and, while she was entirely alone, brought forth a healthy babe, to the joy and astonishment of all. About this time, and in the same town, two brothers were taken with a common influenza, and the doctor above alluded to destroyed them both in five days, with *calomel* and *bleeding*. Just before the last expired the mother was taken with the same disorder, and the dying son cautioned her against the doctor, saying 'he has killed my brother, and now I must die also;' the mother obeyed his injunction, and soon recovered. Being acquainted with all these families, I have stated the above as solemn facts, which is only a part of the black deeds of the kind that I might relate, and from my own observation too."

CHAPTER I.

DISEASES OF PREGNANCY.

Conception.—In order to procreate the human species, there is a periodical discharge of blood from the vagina of every female, termed the catamenia or menses. The secretion of this fluid commences at that period of life termed puberty, which occurs at different ages, according to the climate. In some latitudes it commences as early as eight or ten, and in others not until fifteen. As soon as conception or pregnancy commences this discharge ceases, and goes to support the fœtus or the child.

The manner in which conception takes place has ever been a fruitful subject of inquiry, but we are unable to account for this change precisely. It is, however, pretty evident that the semen of the male is introduced into the uterus, while the ovum of the female is discharged from the ovaria by means of the Fallopian tubes, the fimbricated extremity of which closely embraces that organ.

These tubes, by a kind of peristalic motion similar to the intestines, convey the ovum of the female into the uterus, where it unites with the semen of the male; and it is these united agents which constitute the rudiment of the fœtus, and which often give to the child the appearance and dispositions of their parents. Sometimes one trait is inherited, sometimes another; at other times a new compound or character is formed, (like a chemical union,) in which the peculiarities of both parents are blended.

Pregnancy.—As soon as the female becomes pregnant many new symptoms follow, such as suspension of the menses, sickness at the stomach, heartburn, peculiar longings, indigestion, headache, giddiness, &c. The breasts become enlarged, shooting pains extend through them, and the circle around the nipple alters to a dark brown colour. There often occurs likewise a feverish disposition, with debility, emaciation, irritability, and peevishness of temper, and a total alteration of the countenance, every feature of which becomes much sharpened. Some women breed so easily as to experience scarcely any kind of inconvenience whatever; while others, again, are perfectly incapable of retaining the least thing on their stomach, and are thereby reduced to a state of extreme weakness.

With some women the vomiting will continue during the whole, or greater part, of the second stage of pregnancy, as well as the first; but this does not usually happen. Partial suppressions of urine, with a frequent inclination to void it; itching about the external parts of generation, costiveness, tenesmus, and the piles, are the complaints they are chiefly incommoded by during this period. Most women quicken about the sixteenth week after conception, at which time the mother becomes sensible of the slightest efforts of the child; and, besides the complaints just enumerated, she will then be liable to sudden faintings and slight hysteric affections.

According to the common received opinion, quickening, so termed, generally has been understood to commence at the time when particular sensations are perceived by the mother, supposed to be occasioned by the first motion of the child. The most usual time of feeling any such symptoms is about the latter end of the fourth, or beginning of the fifth, month of pregnancy; at this period the uterus, filling up the pelvis, slips out and rises above

he rim ; and, from that sudden transition, women of a delicate constitution and irritable fibre are apt to faint, more particularly so if in an erect position.

During the last three months, or third stage of pregnancy, general uneasiness, restlessness, (particularly by night,) costiveness, œdematous swellings of the feet, ankles, and private parts, cramps in the legs and thighs, difficulty of retaining the urine for any length of time, varicose swellings of the veins of the belly and lower extremities, and the piles, are the affections which usually prove most troublesome. In weak, delicate women, of an irritable habit, convulsive fits sometimes arise, which are ever to be regarded in a dangerous light.

There is great danger of being deceived respecting pregnancy ; it is sometimes difficult to discriminate between it and common obstruction of the menses. On one occasion my opinion was asked about two females, sisters, supposed to have monthly obstructions ; I decided that they were both pregnant, which was positively denied ; but, subsequently, I attended both in their confinement.

Professer Channing, of Harvard University, made the following statement in one of his lectures : "A few years ago," said he, "there was a young woman, at the Massachusetts General Hospital, with all the symptoms of dropsy ; she bore a good character, and was of a religious turn of mind. She was treated with foxglove, bleeding, and all the remedies for dropsy, and at length discharged as incurable. In a short time after this, however, I heard that she had been put *to bed with twins*. I do not know," he added," how I could have been so deceived ; but such are the errors which are sometimes committed in the medical profession."

Particular Symptoms of Pregnancy.—Were females to use proper diet and exercise, they would suffer very little from pregnancy. Civilization and fashion have brought on a train of diseases.

Sickness of the Stomach.—Some women are incessantly harassed by nausea, or sickness of the stomach, and that during the whole period of gestation or pregnancy. For this symptom the patient should take the following preparation : Take sal æratus, (*bicarbonate of potash*,) one tea-spoonful ; peppermint or spearmint tea, half a pint : mix ; of this let a table-spoonful be taken occasionally, to be accompanied with the use of spearmint tea. *Soda powders* have also been found very serviceable to allay the irritability of the stomach in such cases ; but the best preparation that I have ever found to relieve the sickness of the stomach attendant on pregnancy is, an infusion or tea made of the *rose willow bark*, (*cornus sericea*.) This has proved, in my hands, exceedingly valuable. The bowels must be regulated by gentle laxatives.

A lady has just gone from my office, who stated to me that she derived great benefit from the *neutralizing mixture*. Saratoga water benefited one person more than all other means. A dry cracker should be eaten on first rising from bed.

Heartburn.—For the heartburn which sometimes takes place in pregnancy, let the mixture be given mentioned under the head of sickness of the stomach ; if that fails, let large tea-spoonsful of carbonate of magnesia be taken morning and evening, in a little milk or syrup.

Lethargy, Headache, etc.—When there is a sense of fulness in the head, with giddiness and plethora, a dose of our common *physic* should be given, the feet immersed in warm ley water, and *mustard plasters* applied to them ; bathe the head with *salt* and *water*. A vegetable and spare diet should be strictly adhered to : this will prevent the necessity of bleeding

Costiveness.—If costiveness supervenes, laxative medicine must be taken; but it is always better to regulate the bowels by stewed fruits, such as *apples, peaches, prunes, &c.* Take the *anti-dyspeptic pills;* injections are sometimes necessary

Piles.—For the piles apply the *mullein* or *celandine ointments*, and obviate costiveness by the use of cream of tartar, flour of sulphur, &c. Of all the preparations for the piles I have found none so effectual as the *pile electuary* The first or second dose usually affords relief: it should be taken sufficient to act merely as an aperient or laxative. It may be dissolved in warm or cold water, or taken in the form of pills, four, morning, noon, and night.

Toothache.—To relieve the toothache, a few drops of the oil of cloves, red pepper, or any other essential oil applied to the affected tooth, will often remove it for the time.

Longings.—It is always desirable to gratify the peculiar longings of pregnant women, otherwise they are apt to miscarry, from the anxiety these occasion when not indulged in them. But that the child in the womb can be marked by any depraved appetite of the mother, or be mutilated by any disagreeable sight that may be present to her, is doubtful.

Hysterics and Fainting.—Should sudden fainting or any other hysterical affection arise, little more will be necessary than to expose the patient to a free open air, to place her in a horizontal position, and to give her a glass of cold water, with a few drops of hartshorn; or a little wine, sufficiently diluted, may also be taken, or *compound spirits of lavender.*

Swelling and Pain in the Breasts.—Sometimes the breasts become swollen and very painful; to obviate this symptom, great care must be taken that no part of the dress be tight over the breasts; and they should be rubbed with equal parts of *sassafras oil, sweet oil,* and *camphorated spirits,* morning and night.

Palpitation of the Heart.—When this affection occurs during pregnancy, it is usually from a disordered state of the stomach, and must, therefore, be cleansed by moderate doses of physic; fifteen or twenty drops of the tincture of digitalis, to be taken three or four times a day in a little tea, or a little *compound lavender.*

Swellings.—There are often puffy swellings in advanced stages of pregnancy, particularly toward evening; for this symptom bathe the feet often, and apply fomentations of *bitter herbs.*

Cramps.—For cramps of the legs and thighs, which often occur, let the parts be rubbed with tincture of capsicum. The feet must be bathed often in warm water, and the legs should be well covered with flannel.

Wakefulness, etc.—For wakefulness, want of sleep, &c., give the *tincture* or *extract of hops* at bed-time, and let exercise be taken through the day.

False Pains.—False pains, resembling those attendant on actual labour, are apt to come on at a late period of pregnancy, often occasioning unnecessary alarm. Confinement in a horizontal position; laxative medicines, if costive, and giving small and frequent doses of anodyne until the patient finds relief, may in such cases be necessary.

Suppression of Urine.—Take equal parts of the *spirits of mint* and *sweet spirits of nitre,* and add a little *gum camphor;* of this take one or two teaspoonsful every hour or two. Drink *parsley tea,* and foment the bowels; should the above fail after a reasonable length of time, use the female catheter; the female herself, the midwife, or husband can introduce it very easily. A small goose-quill will answer well; cut a hole near the end, and another at the top of the hollow part or barrel, without otherwise

cutting the quill, lubricate it with sweet oil, and gently introduce it upward and backward.

Fits or Convulsions.—Sometimes, in advanced stages of pregnancy, hysteric or other fits occur, as well as during labour. They may arise from various causes, such as exhaustion, fatigue, bleeding, &c. The face is pale, the eyes sunk, and the extremities cold: the fits usually succeed each other rapidly, and terminate in fainting. It was this kind of fits, a writer states, that destroyed the Princess Charlotte, of Wales.

Treatment.—For these convulsions, whatever may occasion them, an opium pill, containing about three grains, should be given. The feet must be immediately immersed in water, as warm as can be borne, and a large injection or clyster administered; and if these means do not soon afford relief, a mustard plaster should be applied between the shoulders and to the feet, and evaporating lotions, such as spirits, rain water, and vinegar, applied to the head.

The warm bath is strongly recommended, by Dr. Denman, among the means for preventing convulsions in women previous to, or during, their confinement. He states that from its occasional use women will often find much benefit; and that it is one of the principal means for preventing puerperal convulsions, and for insuring an undisturbed labour. He also recommends a warm bath in labours rendered complex by convulsions; and this upon a long and extensive experience.

Abortion.—Abortion frequently takes place during pregnancy. When this occurs, let it be treated the same as laid down under that head.

CHAPTER II.

LABOUR, DELIVERY, ETC.

After seven months of pregnancy the fœtus has all the conditions for breathing and exercising its digestion. It may then be separated from its mother, and change its mode of existence. Child-birth rarely, however, happens at this period: most frequently the fœtus remains two months longer in the uterus, and it does not pass out of this organ till after the revolution of nine months.

Examples are related of children being born after ten full months of gestation; but these cases are very doubtful, for it is extremely difficult to know the exact period of conception. The legislation in France, however, has fixed the principle, that child-birth may take place the two hundred and ninety-ninth day of pregnancy.

Nothing is more curious than the mechanism by which the fœtus is expelled; everything happens with wonderful precision; all seems to have been foreseen, and calculated to favour its passage through the pelvis and the genital parts.

The physical causes that determine the exit of the fœtus are the contraction of the uterus and that of the abdominal muscles; by their force the liquor amnii flows out, the head of the fœtus is engaged in the pelvis, it goes through it, and soon passes out by the valve, the folds of which disappear; these different phenomena take place in succession, and continue a certain time; they are accompanied with pains more or less severe, with swelling and softening of the soft parts of the pelvis and external genital parts, and with an abundant mucous secretion in the cavity of the vagina

All these circumstances, each in its own way, favour the passage of the fœtus. To facilitate the study of this action, it may be divided into several periods; but without practical use.

The first period of child-birth.—It is constituted by the precursory signs Two or three days before child-birth a flow of mucus takes place from the vagina, the external genital parts swell and become softer; it is the same with the ligaments that unite the bones of the pelvis; the mouth of the womb flattens, its opening is enlarged, its edges become thinner; slight pains, known under the name of *flying pains*, are felt in the loins and abdomen.

Second period.—Pains of a peculiar kind come on; they begin in the lumbar region, and seem to be propagated toward the womb or the *rectum;* and are renewed only after intervals of a quarter or half an hour each. Each of them is accompanied with an evident contraction of the body of the uterus, with tension of its neck and dilatation of the opening; the finger directed into the vagina discovers that the envelopes of the fœtus are pushed outward, and that there is a considerable tumour, which is called *the waters;* the pains very soon become stronger, and the contraction of the uterus more powerful; the membranes break, and a part of the liquid escapes; the uterus contracts on itself, and is applied to the surface of the fœtus.

Third period.—The pains and contractions of the uterus increase considerably; they are instinctively accompanied by the contraction of the abdominal muscles. The woman who is aware of their effect is inclined to favour them, by making all the muscular efforts of which she is capable: her pulse then becomes stronger and more frequent; her face is animated, her eyes shine, her whole body is in extreme agitation, and perspiration flows in abundance. The head descends into the lower strait of the pelvis.

Fourth period.—After some moments of repose the pains and expulsive contractions resume all their activity; the head presents itself at the vulva, makes an effort to pass, and succeeds when there happens to be a contraction sufficiently strong to produce this effect. The head being once disengaged, the remaining parts of the body easily follow, on account of their smaller volume. The section of the umbilical cord is then made, and a ligature is put around it at a short distance from the umbilicus or navel.

Fifth period.—If the midwife has not proceeded immediately to the extraction of the placenta after the birth of the child, slight pains are felt in a short time, the uterus contracts freely, but with force enough to throw off the placenta and the membranes of the ovum; this expulsion bears the name of *delivery.* During the twelve or fifteen days that follow child-birth the uterus contracts by degrees upon itself, the woman suffers abundant perspirations, her breasts are extended by the milk that they secrete; a flow of matter, which takes place from the vagina, called *lochia*, first sanguiferous, then whitish, indicates that the organs of the woman resume, by degrees, the disposition they had before conception.

CHAPTER III.

MANAGEMENT OF LABOUR.

Women in general are ignorant of parturition or delivery. Almost all of them are under the impression that labour is completed more by art than nature; hence the most noted accoucheurs are employed to attend during this interesting period; and professional men, in general, have no wish to unde-

ceive them on this subject, as their interest is too much concerned. I have been often astonished to see the credulity and ignorance manifested on these occasions. Thanks and blessings have been poured upon me, under the idea that I had saved their lives in labour, when I had merely looked on and admired the perfectly adequate powers of nature, and superintended the efforts of her work; and it is nature that accomplishes all, while the accoucheur gets the credit of it. There is not one case in a thousand in which you can do more than remain a silent spectator, except to calm the fears of the ignorant and timid attendants. The mischief and injury that is done by the untimely interference of art is incalculable.

In pregnancy women are bled till they have not strength enough to accomplish delivery; and, when it takes place, the forceps or other instruments are used, which often prove fatal to the mother or child, or both.

Were all women properly instructed in this branch, many lives would be saved; and it is in this branch that I wish to see a *reform*, as well as other branches of medicine; but the want of room prevents me from here enlarging upon this subject.

All women ought to be instructed in midwifery, and those who are of a proper turn of mind should be well qualified to act in the capacity of midwives: no man should ever be permitted to enter the apartment of a woman in labour, excepting in consultations or on extraordinary occasions. The practice is *unnecessary*, *unnatural*, and *wrong*.

There are various particulars to be avoided, and several things to be done, in the management of women during labour. I have room here to state only a few, and shall begin by pointing out the course to be pursued in

Natural Labour.—When called to a woman supposed to be in labour, we must first ascertain whether her pains are *true* or *false*, and which may be easily known by a little inquiry. If the female complains of flying or unsettled pains about the system, occurring mostly toward evening or during the night, and being slight or irregular, it may be taken for granted that they are spurious or false. If these symptoms prove troublesome, an infusion or tea of *hops* may be taken; or, if this is not sufficient to relieve them, or procure sleep, an anodyne may be taken; and it may be necessary also to give laxative medicines or an injection, with a little laudanum.

True pains may be known by the pain being more concentrated in the lower part of the belly, through the loins and hips.

The pains now increase in regularity and force, returning every ten or fifteen minutes, and leaving the woman comparatively easy in the intervals.

When the pains become regular and severe, there is a discharge of slimy matter, tinged with blood, known by the name of *shows*. At this period of labour it will be proper for the person who attends the labour to examine, in order to ascertain what part of the child presents, which may be done by requesting the female to sit in a chair or on the side of the bed, and to extend the legs, when the longest finger, dipped in sweet oil, may be passed up the vagina to the part which presents, and the sense communicated will determine the nature of the presentation. In nineteen cases out of twenty, or in almost every case, the head will be felt. Frequent examinations should be avoided.

Dr. Bard, speaking of examinations, remarks: "What terms shall I use to condemn, as it deserves, the abominable practice of boring, scooping, and stretching the soft parts of the mother, under the preposterous idea of making room for the child to pass. It is impossible to censure this dangerous practice too severely; it is always wrong; nor can there be any one period in

labour, the most easy and natural, the most tedious and difficult, the most regular or preternatural, in which it can be of the least use; in which it will not unavoidably do great mischief: it will render an easy labour painful; one which would be short, tedious; and one which, if left to nature, would terminate happily, highly dangerous."

"All that is proper to be done in a case of natural labour, from its commencement to its termination," says Dr. McNair, "will suggest itself to any person of common understanding; and I have long laboured under the conviction, that the office of attending women in their confinement should be intrusted to prudent females. There is not, according to my experience, and the reports of the most eminent surgeons, more than one case in three thousand that requires the least assistance. I am aware, however, that there are crafty physicians who attempt, and often succeed, in causing the distressed and alarmed female to believe that it would be altogether impossible for her to get over her troubles without their assistance; and, for the purpose of making it appear that their services are absolutely necessary, they will be continually interfering, sometimes with their instruments, when there is not the least occasion for it. It is my confirmed opinion (after forty years' practice) that there would be much less danger in case of confinement, if they were intrusted altogether to females. There is no doubt in my mind but that one-half of the women attended by these men are delivered before their proper period; and this is the reason why we see so many deformed children, and meet with so many females who have incurable complaints. If the business was trusted to aged midwives, they would give more time, and nature would have an opportunity to do its work; and, if necessary, advice might be had with more safety."

It is a very common circumstance for an inexperienced (or he may be an experienced, but ignorant) practitioner to attempt a rupture of the membranes, and, in doing so, rupture the bladder, which would render the woman miserable during life. I am acquainted with twenty-five or thirty females who have met with this sad misfortune, and many of them have been attended by those who are termed our most successful, or old experienced, physicians.

Dr. Rush, speaking of child-bearing among the Indians, says, "that nature is their only *midwife;* their labours are short, and accompanied with little pain; each woman is delivered in a private cabin, without so much as one of her own sex to attend her: after washing herself in cold water, she returns in a few days to her usual employment; so that she knows nothing of those accidents which proceed from the carelessness or ill management of *midwives* or doctors, or the weakness which arises from a month's confinement in a warm room."

Dr. Whitney remarks; "I have had many cases where I found the attendants alarmed, and some in tears, from supposing they should have had help sooner, fearing the worst consequences from delay; but, admitting that the 'doctor knew best,' they would wait calmly for hours, when in nature's time all ended well. I pledge myself as a physician, that all honest doctors will tell you that *labour* is the work of *nature*, and she generally does it *best* when left to herself."

"Among the Araucanian Indians," says Stevenson in his Twenty Years' Residence in South America, "a mother, immediately on her delivery, takes her child, and, going down to the nearest stream, washes herself and it, and returns to the usual labour of her station."

"The wonderful facility with which the Indian women bring forth their children," say Lewis and Clark in their well known journal, "seems rather

some benevolent gift of nature, in exempting them from pains which their savage state would render doubly grievous, than any result of habit. One of the women who had been leading two of our pack horses, halted at a rivulet about a mile behind, and sent on the two horses by a female friend On inquiring of one of the Indian men the cause of her detention, he answered, with great appearance of unconcern, that she had just stopped to lie in, and would soon overtake us. In fact, we were astonished to see her in about an hour's time come on with her new-born infant, and pass us on her way to the camp, apparently in perfect health."

Washington Irving, in his work entitled Astoria, relates a similar incident in the following language: "The squaw of Pierre Dorion (who, with her husband, was attached to a party travelling over the Rocky Mountains in winter-time, the ground being covered with several feet of snow) was suddenly taken in labour, and enriched her husband with another child. As the fortitude and good conduct of the woman had gained for her the good will of the party, her situation caused concern and perplexity. Pierre, however, treated the matter as an occurrence that could soon be arranged, and need cause no delay. He remained by his wife in the camp, with his other children and his horse, and promised soon to rejoin the main body on their march. In the course of the following morning the Dorion family made its appearance. Pierre came trudging in advance, followed by his valued, though skeleton, steed, on which was mounted his squaw with the new-born infant in her arms, and her boy of two years old wrapped in a blanket, and slung on her side. The mother looked as unconcerned as if nothing had happened to her; so easy is nature in her operations in the wilderness, when free from the enfeebling refinements of luxury and the tampering appliances of art."

Having thus shown who are the proper persons to assist in parturition, and the necessity of depending on the great resources of nature to accomplish delivery, I proceed to treat of labour, delivery, &c.

When it has been ascertained that the labour is natural, or that there are no impediments or obstacles, there will be very little more to do than superintend the person. It will be necessary to give instructions to the attendants to make suitable preparation, or have everything required in readiness.

The woman may be delivered upon a bed or a cot, as is most convenient; if a bed be used, all but the mattress should be turned back toward the head, and it should be so prepared that the moisture from the uterus and other discharges may not add to the discomfort of the woman. A dressed skin, oil-cloth, or folded blanket may be placed on that part of the mattress on which the body of the woman is to rest; a coarse blanket, folded within a sheet, ought to be laid immediately beneath the patient, to absorb the moisture, which must be removed after delivery; the rest of the bedclothes are to be put on in the ordinary way. The woman, when she is no longer able to remain up, may lie down, with her head elevated in any position which is most desirable; and in nearly every case that I have ever attended the back has been preferred, though almost all writers recommend that the woman be placed upon her side: the latter practice is unnatural and wrong, for obvious reasons; it retards the labour pains, and prevents the midwife from superintending the progress of the labour; the pillow that is directed to be placed between the knees, to keep them widely separated, soon gets displaced by the motion or change of the female; and the legs, instead of being kept apart, again come in contact, and thus the passage of the child is obstructed: but when the female is placed upon her back this difficulty

is obviated, a free passage is permitted, the pains are more effectual, the spine is better supported, and better access can be had to the parts during labour and after the delivery of the child; in short, there is a decided advantage in this position in every respect.

The dress of women in labour should be light and simple, both to keep themselves from being overheated, and to prevent anything from being in the way of what assistance is necessary. In addition to the means recommended, I direct a sheet to be placed around the waist of the woman, to prevent the blood, excrements, or waters from coming in contact with the linen or clothes, and, as much as possible, the bed; her linen may be tucked or pushed up so far that there will be no necessity of a removal after delivery.

Everything being thus adjusted, very little more will be necessary but to wait patiently the efforts and operations of nature. There should be but few attendants in the room, and these are not to whisper to each other, or express any fears or doubts.

"A humane midwife will use every ingenious effort in her power to quiet the useless fears, and support and comfort the patient. A crowd of frightened, hysterical women, assailing the ears of the woman with tales of wo and sad disasters that have happened, should be admonished. Half a dozen midwives, each making pretensions to great skill, ambition, and competition for obstetric fame, assembled around a feeble woman when labour is of a lingering character, is always an unfortunate circumstance, and it would be much better if nearly every one were afar off."

When the pains become very severe, quickly succeeding each other, the midwife, or the person who officiates, may sit by the side of the woman, and, upon every severe pain, may keep her hand upon the parts, even though no manner of assistance can be afforded; and occasionally, when the head of the child presses hard, it may be gently touched or pressed with the longest finger, in order to ascertain the parts that present the progress of labour, as well as to be able to give from time to time suitable encouragement: not only so; in the last stage of labour the hand may be kept near the parts, to know the moment when the head of the child presents, as some little assistance at this time is called for; not by supporting the perinæum, as some advise, but,

First. To remove any obstruction which often arises from the clothes.

Second. To support the child in its passage, and in the interval of pains; and to keep the head from pitching downward, and thus obstructing the labour.

Third. To detach the umbilical cord or navel-string from the neck when it encircles it, as is often the case, and which endangers the life of the child.

Fourth. To deliver the woman in case of hæmorrhage or great flooding; but at the same time there must be no farther interference of art; little or nothing can be done toward facilitating the delivery of the child, except when a large bag or collection of water presents and opposes, when it may be ruptured with the longest finger, which often affords much aid; although such is the ignorance and credulity of some women, that they suppose almost everything to be accomplished by art. Physicians or midwives who watch only the process of labour, and do little or nothing, are pronounced inhuman and cruel, and perhaps ignorant, because they are honest in not interfering with the simple and beautiful process of labour, or, in other words, for relying upon the great resources of nature; but such is the fashion and credulity of mankind, or rather womankind, that physicians are obliged to take the advantage of such ignorance and credulity, and regulate their proceedings accordingly. I have often been obliged to stand for hours over a woman, under pretence

of aiding delivery, when, in *reality*, I did nothing at all. The labour would have progressed just as well had I been out of the room; but this deception I have been obliged to practice, in order to satisfy ignorant, gossiping, or crying attendants. When the woman is disposed to make much noise, she should be directed to hold her breath during the pains, and aid or assist them by pressing downward as much as possible. The feet may press against the bed-post, and the woman take hold of a handkerchief and pull when a pain occurs; or she may grasp the hand of an assistant for that purpose. Sometimes, from various causes, labour is very much retarded, from rigidity of the parts, the situation of the child, debility, &c.: when this occurs, and labour is tedious and protracted, our reliance must still be upon the powers of nature. We may, however, aid her efforts, by warm fomentations of *bitter herbs*, often applied to the lower part of the belly, which will prove relaxing, and will facilitate the labour: warm diluent drinks may also be given, such as *tansy*, *pennyroyal*, *&c.*

If the labour still continues stationary, we have nothing to fear, provided there is a right presentation; but should the pains become feeble or lessened from flooding, debility, or any cause, or should they prove unavailable after a reasonable length of time, a drachm of *spurred rye* or *ergot* may be put into a tea-cup, and a gill of boiling water poured upon it, and, when cool, a table-spoonful given every fifteen minutes. This will increase the pains, and speedily accomplish a delivery; but it should be very seldom, or never, used, except when there is a right presentation, and under the most urgent circumstances.

It is prudent, by judicious precaution and care, to remove obstructions, prevent accidents by holding or supporting the child in a proper position, and giving such aid as reason and judgment will dictate. Receiving the child, preventing its fall, securing the navel cord, assisting in the removal and disposal of the after-birth, are objects which are to be accomplished, and all in the most calm and simple manner; no hurry or excitement is necessary, but, on the contrary, they embarrass. Yet how common is it that females in general, married and unmarried, are so stupid and ignorant, that, instead of attending to those duties, if necessary, or in cases of emergency, they are thrown into the greatest consternation, and perhaps run out of the room and let the child suffocate by the bed-clothes, or by the navel cord twisted about the neck, and die merely for want of a little common sense and knowledge, which might be acquired in an hour. Is it not highly disgraceful, if not criminal, that persons can, and do, attend to these duties toward their stock, and yet remain entirely ignorant of them toward their nearest relations? Young women and men are taught music, dancing, drawing, needle-work, and many ornamental branches considered so essential to a polite education; yet they are suffered to remain entirely ignorant on a subject of so much vital importance. Is there any hope or prospect of enlightening this generation, or must it be delayed till the next, and have them look back with amazement at our ignorance? I hope there is something yet redeeming in a large proportion of the community; that the people will yet awake to their own interests.

When the head is delivered, all that is necessary to do is, to support it, and wait for the pains to expel the child; except it seems livid and in danger of injury, or when the cord is twisted around the neck, when assistance must be rendered, to accomplish the delivery. The face of the child must now be turned upward, and the cord freed from the neck or body; the person who assists will pass a narrow piece of tape around the cord or navel-string, about

an inch from the body, and tie as tight as it can be drawn, otherwise hæmorrhage or bleeding will take place; and another must be tied at a little distance from it, above, and be separated between them with a pair of scissors. The child is then to be given to the nurse, to be washed, dried, and dressed. The woman must now be covered, and directed to lay quiet.

THE AFTER-BIRTH.—The after-birth or placenta must be detached or removed, if nature does not accomplish it in a short time. Generally, after about twenty or thirty minutes, a pain is felt, which may be sufficient to expel it; if it should not, and should there be no pain, gentle manual attempts may be made to remove it.

The head and breast may be elevated, and the cord taken hold of by the left hand: the two first fingers may be carefully introduced into the vagina, and the anterior or forepart of the placenta or after-birth held in this situation for some minutes, in order to excite a contraction of the uterus. The woman may now be directed to hold her breath and press down, which forces it forward; and at the same time a little extension may be made upon the cord with the left hand, while extension is made upon the after-birth with the right: this will almost invariably extract it in a few minutes. If from any cause it should not, no farther attempts must be made for the present, but left for a few hours, when, if the natural contractions of the uterus do not remove it, it must be done in the manner recommended, with this difference, that a little more force be used. In the interval, however, everything wet must be taken away.

SUBSEQUENT TREATMENT.—After the labour has been thus completed, if the woman is not too weak, assistants may raise her up, and seat her upon the side of the bed or cot, while another removes all the wet clothing from the patient and her bed, and with a little warm spirits washes off the blood, water, &c., that remains on her person. This is particularly necessary, as the omission of it may give rise to puerperal fever. I know not that any other has practised this method; but I have found it conducive to the comfort as well as the health of the patient. Some practitioners will not suffer the woman to be removed from the situation in which she has been delivered under twelve or twenty-four hours, for fear of hæmorrhage or flooding; but this is a great and dangerous error. It is impossible to tell what mischief may arise in consequence of suffering her to remain drenched in water and blood for this length of time.

After these precautions have been observed, and the bed properly prepared, on which has been placed folded blankets, skin, or oil-cloth, covered with a warm sheet, she may be laid down, and a diaper or suitable piece of muslin laid to the parts to absorb the lochial discharges. A bandage may be also placed around the abdomen or belly, and made moderately tight, but not so as to render her uncomfortable. A large tub, previously well dried may be placed by the side of the bed, and the woman directed to place her feet in it, and, when she is lifted up, everything that is around her wet to be passed into it. It prevents the necessity of afterward washing the floor and carpet, which might prove injurious by causing a check to perspiration.

Preternatural labour, or *cross births*, are those in which some other part than the head presents. We cannot in general assign any reason for such occurrences, nor can the woman, by any sensation of her own, be assured that the presentation is unusual. Apprehensions of this kind should not be indulged in. If the feet or breech present, the delivery is to be accomplished by properly accommodating the position of the child to the capacity of the pelvis, but no force should be employed; and though there is always some

risk to the life of the infant, yet there is none to the mother. If the arm, shoulder, or sides of the child present, the delivery is not impossible, but difficult until the infant be turned and the feet brought down into the passsge. This is an operation which may be done with comparative ease and safety, if the wrong position of the infant be discovered before the waters are discharged but otherwise both mother and child are in considerable danger, though there is often a spontaneous evolution, and delivery is effected. The womb closely contracting around the body of the infant when the water is drained away, and being soft and spongy in its texture, it is liable to be torn if much force be employed, and then either the child may escape into the cavity of the belly, or, if it be extracted by the feet, blood may be effused from the womb into that cavity, and such injury be done as to prove fatal. Women too frequently add to the danger of the operation of turning, by their restlessness and impatience; they should remember how much is at stake, and exert all their fortitude, so as not to embarrass the practitioner.



The labour having been thus accomplished, it will be necessary to guard against any subsequent symptoms which may occur or take place.

In *tedious* and very *difficult* labours, and where common physicians use the lancet, the hot bath will be found of extraordinary benefit in facilitating labour, by its relaxing the system without debility; altogether better than bleeding. First apply spirits, water, and salt to the head; then let the woman continue in the bath about fifteen minutes.

CHAPTER IV.

TREATMENT AFTER DELIVERY.

AFTER-PAINS.—Soon after delivery these usually come on, and with some women prove remarkably severe. The quicker the labour has been, the slighter will they prove in general. Women with their first child are seldom much troubled with after-pains; but as the uterus is thought to contract less readily after each future labour, so they are more liable to suffer from them in any succeeding delivery than in the first.

When after-pains prove so troublesome as to deprive the patient of her rest, it will be necessary to have recourse to *fomentations* or *anodynes;* red pepper and spirits, simmered together a few minutes, and flannels dipped in it and applied to the belly, will generally relieve them; if it fails, apply a fomentation of *bitter herbs*, and give two tea-spoonsful of the tincture of *hops* in milk or tea. If these fail, which I never knew, give half a tea-spoonful of *capsicum* in milk. These remedies are to be assisted by keeping up a sufficient pressure on the belly at the same time by means of a broad bandage.

Puerperal Fever.—I have already treated of this disease under the head of fever. Dr. McNair thinks it not an inflammatory type of fever, but congestion. He gives, 1st, an emetic; 2d, antimony, to cause perspiration; 3d, mustard to the bowels. Dr. Boer, of Vienna, highly recommends antimony.

Among the European writers on this fever are, Drs. Butler and Clark, who have given the results of their practice. The former depended upon purgatives and cordials, and was successful with all his cases; the other used bleeding in all cases, and lost more than two-thirds of his patients. (*See Puerperal Fever, under the head of Fevers.*)

Costiveness.—Costiveness is apt to prevail after delivery, and should always be removed by a laxative clyster or some gentle purgative, such as *senna* and *manna*, or about an ounce of castor oil. The anti-dyspeptic pills are also excellent.

Flooding or Lochia.—After delivery there is a flow of blood from the womb, and sometimes it is excessive. When this is the case apply *vinegar, spirits*, and *water* to the lower part of the bowels, and give some astringent, as a cold tea of *fleabane, beth-root, &c.* A little *salt* and *water* is also very good.

Milk Fever.—From cold or other causes the milk becomes obstructed, and the breasts are hard, swelled, and painful, attended with fever, nausea, pain in the head and back, with thirst.

Treatment.—Apply the child to the breast as early as possible, and, if necessary from any cause, let the milk be drawn two or three times a day by some person. If there is too much milk, use a spare diet: no animal food. The breasts may be bathed with the *bitter-sweet ointment* or with soap liniment. Keep the bowels regular. A little physic may be required. Should there be *inflammation* and *tumours* in the breast, treat them as laid down under that head.

Milk or Swelled Leg.—(*Phlegmasia Dolens.*)—A short time after delivery this disease sometimes appears. It usually attacks one leg, and may extend to the other, and the whole system may become affected. The limb appears firm, glossy, elastic, swollen, and painful. The attack is generally preceded by a chill, succeeded by fever. The limb is stiff, heavy, and is irritated by motion; is tender; the skin is not discoloured, but has an increase of heat. After a period of about two weeks these symptoms subside, leaving the limb stiff, benumbed, heavy, and weak, and is very liable to remain more or less so for a great length of time. It may arise from a suppression of the lochial discharge or the milk, or from cold.

Treatment.—Give occasionally a cathartic, and promote moisture of the skin. Foment the limb with cloths immersed in a strong decoction of hops, and repeat two or three times a day. It may likewise be steamed over *bitter herbs*, or a bandage applied and kept wet with the decoction. If hot applications aggravate it, keep the limb wet with *stramonium* leaves, simmered in *spirits*, and applied cool. If it proves obstinate, *ley water* may be used in the same manner; likewise *salt* and *water;* and the whole limb may be anointed with *bitter-sweet* or *mullein ointments.*

Dr. Leavitt, a botanic physician of this city, informs me that he cured a case of milk leg by cold applications.

Falling or Projection of the Womb.—This happens to lying-in women and others, either partially or wholly. The womb descends into the vagina, and sometimes protrudes entirely out, which causes much distress; pains in the back, groin, bearing down, with great weakness, and nervous symptoms. It arises from various causes, as over exertion, straining, lifting, or any vio-

lent exercise. The ligaments that secure the womb to the body become relaxed, which permits it to fall down.

Treatment.—A broad bandage should be worn over the lower part of the bowels and drawn moderately tight, a strengthening plaster applied to the back, the *restorative wine bitters* used, the bowels kept regular, and the surrounding parts bathed twice a day with salt and water. A decoction of oak bark, to which add a little alum, may be injected into the womb or vagina once or twice a day.

There are several kinds of abdominal supporters invented to take off the weight and tension from the womb, which may prove very serviceable. These can easily be made, or one may be purchased already made.

Where the womb protrudes, it ought to be replaced by laying the woman in a recumbent position, applying the fingers and thumb to the lower part of the tumour, and then, by a gradual and gentle pressure, carried upward into its centre, and continued until the parts are returned to their natural place. This being effected, a proper sized sponge is to be introduced, and the woman kept in a recumbent posture for several hours. A sponge ought to be introduced as high up the vagina as can easily be borne, and it must occasionally be removed and well cleansed. As the parts recover their proper strength and tone, one somewhat of a smaller size should be substituted. The same bandage may be worn as recommended under the head of *fistula*.

Inflammation of the Womb.—This disease sometimes takes place. For symptoms and treatment I refer the reader to it under *inflammatory complaints*.

Sore and excoriated Nipples.—This complaint often happens, and it is very distressing. Wash the parts with a little *borax water;* also with a tincture of the *balm of Gilead buds*. The *celandine* and *mullein ointments* are very good; after applying one or more of them, cover the parts with *slippery elm bark*, mixed with cream or milk. This course will, in general, cure. Should it fail, anoint the nipples and excoriated parts with the *oil of eggs*. This cured one very bad case, when some of the above applications failed. The oil is procured by boiling the egg hard, and pressing it out between two pewter plates.

Dr. C. Pratt has invented an artificial nipple, which is very ingenious and simple; the object of which is, to relieve and cure sore nipples. It consists of a small metalic shield, over which is placed a soft substance, (prepared cows' teat,) from which the child nurses with the greatest ease, and without giving any pain to the mother. The child extracts the milk from the breast with the greatest facility where the nipple is wanting entirely, excoriated, the skin abraded, and where the nipple is inverted; also when the mouth of the child is so sore that it cannot nurse. The construction of the old nipple shield is such as to prevent a flow of milk. This is made somewhat in the shape of the nipple, with a narrow rim, which comes in contact with the breast. It is so simple that it can easily be made of glass, ivory, silver, or other metal, and may be covered with India rubber, or be used without any covering. I give a drawing of one which I think will answer: A represents the breast; B the *nipple shield*.



Nursing.—A child must not be put to the breast, if the mother's health is very poor, or if she has any venereal, scrofulous, consumptive taint, or herpetic disease, St. Anthony's fire, &c. I have conversed with a female to-day who is subject to the last complaint, and she has communicated it to three of her children, which destroyed them all. The poison is

transmitted from the mother to the child. In any of these cases the infant must be reared on the nursing bottle. Jemima Bowne, a very sensible woman, states that in all cases it is best to use cream instead of milk; the child thrives well upon it, less quantity answers, and it does not curdle, like milk, upon the stomach. She has always reared her own children upon cream.

Atrophy from Suckling.—Some women of a delicate constitution cannot suckle long without an evident appearance of declining health; and, if persisted in, it might terminate in a general wasting of the body and loss of strength, or some morbid affection of the lungs. When, therefore, a woman finds her health declining, and that she gets weaker every day with loss of appetite and languor, she ought immediately to leave off suckling; she should use a generous diet, with a moderate quantity of wine bitters daily, and, if convenient, change the air, particularly if an inhabitant of a large and populous city or town. If the change is not found sufficiently efficacious of itself, when conjoined with a restorative diet, a course of *tonics* should be given. Gentle exercise on horseback or in a carriage will greatly assist the effect of these remedies.

Other diseases of women, as well as children, not noticed here, are treated under their proper heads.

CHAPTER V.

DISEASES OF CHILDREN.

Still-born Infants.—This occurs from difficult labours, or the cord encircling the neck; or a membrane may cover the head or body. I once attended a woman who was delivered of a child that had a singular appearance when it was born, and was at a loss for a few seconds to account for it. I discovered that a thin membrane covered nearly the whole body, and prevented the child from breathing. I immediately removed it, brought it home, and laid it aside to keep. But, from a superstitious notion that the child would possess a "second sight," or see into futurity, some females I believe, knowing the circumstance, destroyed it. When any thing of the kind occurs, the membrane should be immediately removed. If no signs of life appear, the infant may be put into the warm bath, and the mouth and body wiped dry. A little cold water may be dashed into the face, the lungs inflated by some person, and a slight motion made upon the chest in imitation of breathing. The navel-string may be permitted to bleed a little. I attended a woman, whose child was still-born in consequence of having been in labour for a long time, locked in the passage, with the face upward. The pains were terrible. The head and face were bruised and swollen, and I supposed it was dead; but after a time it gasped, and finally recovered.

Retention of the Meconium.—The bowels of all infants, at the time of their birth, are filled with a blackish coloured and viscid matter, of the consistence of syrup, known by the name of meconium. The efforts of nature are in general sufficient to dislodge and carry it off, if assisted by the mother's milk, which is always at first of a laxative quality; therefore infants should be applied to the breast as soon as they show an inclination to suck. Should it be retained, or not sufficiently carried off, a small tea-spoonful of

castor oil, or a little senna tea, may be given, particularly if he secretion of milk in the mother's breasts is rather tardy.

Acidity, Flatulency, and Gripes.—From various causes the infant is sometimes afflicted with these complaints. They arise generally from impure milk from the mother: when this is the case the mother should take the *neutralizing mixture;* and, if it does not relieve, give some to the infant. The bowels may likewise be bathed with warm spirits or brandy, to which a little salt must be added. The mother should be careful about her diet, and avoid taking cold, both of which affect the child. *Catnip* and *soot teas* are very good; also the *carminative drops.*

Looseness or Purging.—This is soon removed, by giving both the child and the mother a little of the *neutralizing mixture.*

Teething or Dentition.—A great many children are taken off from teething. It causes heat and pain in the head, restlessness, and fever, and the gums are swollen and painful; it often occasions fits.

Treatment.—In extremely bad cases the gums may be scarified. A little physic may be administered every other day; the feet often bathed; also the head, with spirits; the warm bath is excellent. If the child cannot sleep, give a few of the *diaphoretic powders.* "A crust of bread," says a writer, "is the best gum-stick." A strengthening plaster may be put between the shoulders.

Galling and Excoriation.—Young children are very apt to become excoriated in particular parts of the body, especially about the groins, wrinkles of the neck, behind the ears, and under the arms, such places being kept much moistened by urine or sweat.

These complaints prove very troublesome to children, and are, in some measure, owing to a want of due cleanliness in the mother or nurse. To prevent, and likewise to remove, them when they do occur, it will be necessary to wash the parts well with cold water once or twice a day, to change the clothes often, and keep the child perfectly clean. After the child is washed and dried, the parts affected may be sprinkled with a little fine elm bark. Where the excoriation or galling is considerable, the parts, after having been washed with cold water, may be anointed with *celandine, elder,* or *mullein ointment.*

Aphthæ, Thrush, or Canker.—Infants and children are often affected with little sore spots or eruptions about the mouth; the disease usually extends from the stomach to the end of the bowels, giving rise to many painful and unpleasant symptons.

This complaint arises from a morbid state of the stomach, and must be treated by giving a gentle *neutralizing physic,* such as the medicine mentioned above. The mouth may be washed often with a decoction of sage, gold thread, and hysop, sweetened with honey; a little fine borax may be added.

Says a physician, "Among the vegetable productions of our country perhaps none excel the *wake robin,* or *wild turnip,* finely pulverized, and rubbed into a paste with a little honey, which should be placed in small quantities on the infant's tongue, and often repeated, to have it spread through the mouth."

Convulsions.—When fits or convulsions arise from teething or any other cause, the feet must be immediately bathed in warm ley water, and an anodyne be administered, such as the *syrup of poppy* or *paregoric.*

Garlic should be bruised and applied to the stomach; and, if there is heat of the head, spirits, rain water, and vinegar may be applied. These means

must be repeated as often as fits occur: in obstinate cases it may be necessary to use a warm bath.

Soreness or excoriation of the Navel-String or Umbilical Cord.—About the time the umbilical cord separates there is sometimes soreness and inflammation; for such symptoms sprinkle with a powder of *slippery elm bark*, and apply the *black salve*; also the *brown ointment*.

Rupture.—(*Hernia.*)—Sometimes, from crying or other causes, infants are afflicted with ruptures; when this happens the earliest attention is required. The infant or child should be placed in a recumbent position, or on its back; then press the tumour or protruded part back, make a compress of linen, which has been previously wet in a decoction of oak bark, apply it over the rupture, and secure it by a bandage. If this fails to keep it in its proper situation, apply a *truss*.

Tongue-tied, or division of the Frænum Linguæ.—Sometimes the frænum of the tongue is so contracted that the child cannot nurse or suck. When this occurs, and only then, there must be a very slight incision made with a pair of scissors or lancet.

The cut must be very small and superficial, lest a blood vessel be wounded. If the child can nurse, this practice must never be resorted to. In almost every case this is an imaginary complaint; and when a parent (or parents) insists upon its being done, from a mistaken notion, the *back* of the *lancet* may be used, and this will satisfy them.

Imperforated Vagina.—Sometimes a thin membrane forms across the mouth of the vagina, which partially or wholly closes it. This is very easily divided by a lancet or pair of scissors. I have had but one case of this kind.

Club, Crooked, or Deformed Feet.—When children are born with this deformity, an intelligent person informs me that a certain practitioner is always in the habit of immediately turning them at birth into a right position, and securing them with proper splints and bandages. "This," he says, "always obviates deformity."

Choking.—Infants often become choked by getting various substances into their mouth and throat. When this accident occurs, let the child be placed upon the lap of the mother or nurse, and its head turned downward, while it is gently struck a few times on the back between the shoulders; if this does not immediately remove it, let the fore-finger be introduced and extract it: should this fail, give a mild emetic.

CHAPTER VI.

MANAGEMENT OF CHILDREN.

It is during infancy that the foundation of a good constitution is generally laid, and it is, therefore, important that parents be taught the best method of managing their offspring, in order to preserve their health. Great ignorance is manifested on this subject; it is owing to this that so many children sicken and die; and, farthermore, it is in consequence of this ignorance in our forefathers that the present generation have become so weak, sickly, and effeminate; and most of these evils may be imputed to errors in diet, regimen, *mineral* and *depletive* agents, &c. We have departed from the simplicity of nature, and we must, of course, suffer the penalty.

1st. *On Diet.*—If the mother or nurse has enough of milk, the child will need little or no food for the third or fourth month. It will then be proper to give it a little of some food that is easy of digestion once or twice a day; this will ease the mother, will accustom the child by degrees to take food, and will render the weaning both less difficult and less dangerous. All great and sudden transitions are to be avoided in nursing; for this purpose the food of children ought not only to be simple, but to resemble as nearly as possible the properties of milk; indeed, milk itself should make a principal part of their food, not only before they are weaned, but for some time after.

Next to milk we would recommend good bread, which may be given to a child as soon as it shows an inclination to chew; and it may at all times be allowed as much as it will eat. The very chewing of bread will promote the cutting of the teeth and the discharge of saliva, while, by mixing with the nurse's milk in the stomach, it will afford an excellent nourishment.

Many are in the habit of pouring down various liquids and mixtures made of rich substances, and so much sweetened that the tender organs of digestion are impaired, and acidity, and bowel diseases follow; articles of this nature should be avoided: no food, except the milk of the mother, should be given, unless absolutely necessary; nature has designed this liquid exclusively for the nourishment of the infant, and, indeed, we may say for children.

There is another precaution to be observed, which is, "never to put an infant to a wet-nurse if it can possibly be avoided;" such persons are generally strangers, and they often communicate the most loathsome and fatal diseases: besides, their milk is often rendered unwholesome by age or other causes: this is a very unnatural practice.

The milk of the mother, then, should constitute the only food of the infant, except in cases of disease, when it becomes necessary to obtain a wet-nurse, or bring up the children on the bottle, which can be done very easily.

I attended a lady of this city who was almost covered with a *herpetic complaint*, or the *salt rheum*, and that, too, when her child was born. I treated and cured her of the complaint. The infant was fed on milk, by introducing a silver tube into a bottle containing it, a figure of which is annexed.



I never knew a child so quiet and free from pain; as much so as any offspring of the brute creation, which are free from it merely by following nature or instinct, which never errs. The milk was supplied from Governeur Morris's *dairy*, near this city, where cows are fed on pasture instead of slops, and, therefore, give pure milk.

Now, it appears to me that if females imitated these animals, were to live on vegetable instead of animal food, and drink nothing but water, they would not only bring forth as easy as the Indians or these animals, and their offspring would be free from

pain, and perhaps be as exempt from sickness. Would not this course produce a revolution in our habits, health, and in the practice of medicine? In the present diseased state of society it might require a long time to bring about a change in the system; but an immediate benefit would follow by adopting these physiological principles. Do not these facts open a new field of investigation and improvement?

Is it not notorious that some infants are crying a great proportion of their time in consequence of pain? and is it natural, or can there be any other cause, except the poison communicated through the medium of the blood, before and after their birth; or the disease may proceed from the impurity of the mother's milk occasioned by errors in diet? It is self-evident that it is so, from the fact that animals are free from these symptoms. Then let me enjoin upon all who do not wish to torment and destroy their children, the *reformed system of dietetics*, as well as medicine; they must all go hand in hand. Can there be any other cause why so many children are in distress from birth, and generally die young, or continue weak and sickly all their lives? There must be a reformation in the habits, taste, and education of modern females. Many mothers are as ignorant, when they have brought a child into the world, of what is to be done for it as the infant itself.

Says Combe; "The leading error in the rearing of the young, I must again repeat, is *over-feeding*, an error serious in itself, but which may easily be avoided by the parent yielding only to the indications of appetite, and administering food slowly and in small quantities at a time. By no other means can the colics, and bowel-complaints, and irritability of the nervous system, so common in infancy, be effectually prevented, and strength and healthy nutrition be secured. Nature never meant the infant stomach to be converted into a receptacle for laxatives, carminatives, antacids, spicy stimulants, and astringents; and when these become necessary, we may rest assured that there is something faulty in our management, however perfect it may seem to ourselves. The only exception is where the child is defectively constituted, and then, of course, it may fail to thrive under the best measures which can be devised for its relief.

"Another cause of infantile indigestion, and which is too much overlooked through ignorance of its importance, is *vitiation of the quality of the milk*, caused by imprudence, neglect, or anxiety on the part of the mother. The extent to which this cause operates in inducing irritation and suffering in the child, is not generally understood; and, accordingly, it is not unusual for mothers to display as much indifference to health, regimen, and tranquility of mind during nursing, as if the milky secretion, and all other bodily functions, were independent of every external and corporeal influence. Healthy, nourishing, and digestible milk can proceed only from a healthy and well-constituted parent; and it is against nature to expect that, if the mother impairs her health and digestion by improper diet, neglect of exercise, impure air, or unruly passions, she can, nevertheless, provide a wholesome and uncontaminated fluid, as if she were exemplary in her observance of all the laws of health.

"It is no new or uncertain doctrine, that the quality of the mother's milk is affected by her own health and conduct, and that in its turn it directly affects the health of the nursling. Even medicines given to the parent act upon the child through the medium of the milk; and a sudden fit of anger, or other violent mental emotion, has not unfrequently been observed to change the quality of the fluid so much as to produce purging and gripes in the child. Care and anxiety, in like manner, exert a most pernicious

influence, and not only diminish the quantity, but vitiate the quality of the milk."

"It is a common mistake to suppose that, because a woman is nursing, she ought, therefore, to live very fully, and to add an allowance of wine, porter, or other fermented liquor, to her usual diet.' The only result of this plan is to cause an unnatural degree of fulness in the system, which places the nurse on the brink of disease, and which of itself frequently puts a stop to, instead of increasing, the secretion of the milk. The health and usefulness of country nurses are often utterly ruined by their transplantation into the families of rich and luxurious employers. Accustomed at home to constant bodily exertion, exposure to the air, and a moderate supply of the plainest food, they live in the enjoyment of the best health, and constitute excellent nurses. But the moment they are translated from their proper sphere, their habits and mode of life undergo an unfavourable change. Having no longer any laborious duties to perform or any daily exposure to encounter, they become plethoric and indolent; and as they are at the same time too well fed, the digestive functions become impaired, the system speedily participates in the disorder, and the milk, which was at first bland, nourishing, and plentiful, now becomes heating and insufficient, and sometimes even stops altogether."

Cocoa shells, made precisely like coffee, make a very pleasant and nutritious drink for nursing females.

WEANING.—"Diet for infants after weaning may be pure milk, two parts; water, one part; slightly sweetened. "This," says Combe, "makes the nearest approach to the nature of the mother's milk, and, therefore, is more suitable than any preparation of milk and flour, or any other that can be given." A child, as a general rule, one year old, ought to be gradually weaned, and the appearance of the teeth shows the propriety of giving food a little more substantial than milk. Bread a day old, mixed with milk and sweetened, may be given in connexion with nursing. Gruel, arrow-root, plain bread, Indian and rice puddings as they grow older, and subsequently bread and butter, thickened milk, hasty pudding or Indian, potatoes, and vegetables. Not a particle of flesh should ever be given. By the use of meat the system becomes excited, and diseases by irritation are apt to be produced, which impede nutrition, and lead ultimately to the production of scrofula and other organic changes in the glands and bowels, and not unfrequently also in the brain and lungs. In these instances the child generally eats heartily, but, nevertheless, continues thin, and is subject to frequent flushing and irregularity of the bowels, headache, and restlessness. His mind partakes of the general irritability of the system, and peevish impatience takes the place of the placid good-humour natural to healthy childhood. In this state the ordinary diseases of infancy—measles, scarlet fever, and hooping-cough—are often attended with an unusual and dangerous degree of constitutional disturbance; and when inflammation takes place it is borne with difficulty, and the system does not easily rally; or the digestive organs become irritated, and the various secretions immediately connected with digestion are diminished, especially the biliary secretion. Constipation of the bowels soon follows; congestion of the hepatic and abdominal veins succeeds, and is followed by the train of consequences which have already been detailed. In reality the wonder comes to be, not that so many children die, but that so many survive their early mismanagement. A morbid condition of the system arises, extremely favourable to the production of scrofulous, consumptive, dispeptic, and other diseases, under which, perhaps, the infant sinks; and yet, strange to state,

parents will stuff their children with flesh and grease two or three times a day.

Says Combe, "One of the most pernicious habits in which children can be indulged is that of almost incessant eating. Many mothers encourage it from the facility with which, for a time, the offer of 'something nice' procures peace. Even from infancy the child ought to be gradually accustomed to eat only when hungry, and when food is really required. After two years of age an interval of four hours between meals will rarely be more than enough; and to give biscuit, fruit, or bread in the meantime, is just subtracting from the digestive power of the stomach. Like almost every organ of the body, the stomach requires a period of repose after the labour of digestion; and, accordingly, in the healthy state, the sensation of appetite never returns till it has been for some time empty. To give food sooner, therefore, is analogous to making a weary traveller walk on without the refreshment of a halt."

"When we reflect that the object of digestion is, to furnish materials for the growth of the body, and to supply the waste which the system is constantly undergoing, it must appear self-evident that, if the digestive powers be impaired by disease, by improper quantity or quality of food, or by any other cause, the result must necessarily be the formation of an imperfect chyle, and consequently, of imperfect blood. The elements of the blood are derived from the chyle, and if *it* be vitiated, the blood also must suffer: if the blood be diseased, so must necessarily be all the organs which it supplies; and if the body be thus debilitated, can any wonder be felt that it should no longer be able to resist the action of offending cases which full health alone can withstand?"

Clothing.—Infants and children are often injured by improper clothing. It is customary for some nurses to wrap them in such a quantity as to injure their health; moderation in this respect should be observed, due regard being paid to that which is sufficient to render them comfortable. Infants, when first born, have clothing enough almost to smother them.

Medicine.—Another very reprehensible custom is, to pour down some nauseous drug, such as paregoric, Godfrey's cordial, or some other articles, every time the child begins to cry or is fretful, by which it becomes habituated to the use of opium, and making it necessary to increase the dose in order to produce the same effect.

Another injurious practice is, to give frequently worm lozenges (the basis of which is calomel or mercury) upon any attack of illness, under the impression that the disorder is occasioned by worms. By this imprudent course both the health and life of the child is endangered. Therefore those who, wish to bring up their children in a healthy condition must avoid these evils, and be content to follow the simple path of nature and common sense.

Few things tend more to the destruction of children than drenching them with drugs. Medicine may be *sometimes* necessary for children; but that it injures them ten times for once it does them good, I will venture to assert. A nurse or mother, the moment her child seems to be unwell, runs immediately to the doctor or the apothecary, who throws in his powders, pills, and potions, till the poor infant is poisoned; when the child might have been restored to perfect health by a change of diet, air, exercise, clothing, or some very easy and simple means.

Care must be taken to keep the bowels regular, which may be effected in most cases by the milk of the mother alone. Most of the complaints in children arise from flatulence or wind; to remove which give common cat-

nip or fennel seed tea, let them drink it freely, and let the mother regulate her diet.

When children complain of pain in the stomach and bowels, it may be necessary sometimes to give a moderate dose of vegetable physic; *senna* and *manna* is very good; after the operation of physic let the diet be attended to. Green fruit must be avoided, and whatever is hard of digestion. The feet should be often bathed in warm water, the bowels must be fomented with bitter herbs, and it is also necessary to give the child sufficient exercise in the open air.

Bathing should never be neglected, as it contributes much to health. Many complaints of the skin and the system are caused by the neglect of this practice. Filth collects on the surface, obstructs perspiration, which retains morbid humours, and which are thrown upon some of the internal organs and create irritation. Is it not owing to this that infants fret and cry so much? Daily bathe with tepid water; this is also good for galling, chafing, excorations, &c.

Pure Air and Exercise.—This is very necessary; impure and confined air, with the want of exercise, causes disease; and hence children in cities are more pale, feeble, and sickly than those who live in the country and breathe pure air and play in the dirt. Confining children at home, in low, confined, dirty houses, cellars, and in school-rooms, is pernicious; also crowding too many in sleeping-rooms. When children are confined in small apartments, the air not only becomes unwholesome, but the heat relaxes their solids, renders them delicate, and disposes them to colds and many other disorders. Nor is the custom of wrapping them too close in cradles less pernicious. One would think that nurses were afraid lest children should suffer by breathing free air, as many of them actually cover the child's face while asleep, and others wrap a covering over the whole cradle, by which means the child is forced to breathe the same air over and over all the time it sleeps. Children, therefore, must have as much *exercise* and *air* as possible, and should be employed in something useful and interesting.

Again; "The premature exertion of intellect to which the mind is stimulated at our schools, by the constant excitement of emulation and vanity, far from strengthening, tends to impair the health and tone of the brain, and of all the organs depending on it; and hence we rarely perceive the genius of the school manifesting in future years any of the superiority which attracted attention in early life."

Another bad custom deserves attention, which is the barbarous and cruel treatment of parents and school-teachers toward their children in beating and whipping them. This course has not only a strong tendency to harden them in vice, but likewise to injure both mind and body. Generally these persons act under the influence of passion, and then vent it upon those under their charge; which, instead of reforming them, infuses the same infernal spirit into the children: have not many an awful account to give for such conduct! What cruelty and suffering children undergo by this reprehensible custom! love begets love, and wrath begets wrath.

I was about to state, that if anything in the city ought to be indicted by the grand jury as a nuisance, "*as sores on the body politic.*" it should be our common schools, as regards injury to *health*, *morals*, and *education*. Several hundred children are crammed into small, ill-ventilated rooms, and are under such discipline, that injurious effects must, in the very nature of things, result to body and mind. What a pity to pervert the best of institutions. The best child, placed in these schools, by association soon becomes as bad as the others.

ON REARING INFANTS.

The following communication is from a worthy member of the Society of Friends, a woman of excellent judgment and experience, and who has reared several children:

"*Westchester*, 6*mo.* 23*d*, 1842.

"ESTEEMED FRIEND: Agreeable to thy request, I send thee information respecting the treatment of rearing infants, the use of cream, &c. I begin when they are twenty-four hours old to give them pure cream without sugar; others may add this if they choose; I never used it. Thee asks how often I give it; I never had any particular period for giving it, but should judge as often as five or six times a day. Thee also wishes to know what I give in case of pain, gripes, fretfulness, &c.; I very often give the articles *catnip*, *lavois seed*, *oil of anise*, &c., but have often found great benefit from *soot tea*; take it from the chimney where wood fire alone has been used. In answer to thy next, on bathing, I wash the infant entirely over with cold water; but, when quite young, put a little brandy in the water; and lastly, as regards food while weaning, I frequently give *arrow-root*, with a little *manna*, as there is often need of a little gentle medicine.

"I would also inform thee that, after taking the *cream* for a week or two, there has, on all my children, appeared an eruption on the skin, which may perhaps cause the nurse to be alarmed, but it will wear off in a few days. I was always particular to give them the cream from one cow's milk.

"I believe I have now answered all thy questions; and if they will be of any use, I shall be paid for my trouble.

"W. B. Thy Friend, S. H. B.

"P. S. In cold weather warm the cream, but be careful not to let it boil."

All diseases of women and children not noticed in the preceding chapters, will be found under the appropriate heads; such as rickets, worms, dropsy in the head, croup, &c.

A COURSE OF MEDICINE.

FOR DISEASES GENERALLY.

IT IS common for physicians of the old school, and some others, to "put or carry" persons through a course of medicine. One class a mineral or mercurial course; another, steaming, puking, &c. I also will give mine, which, in many diseases, may be pursued with success. This plan, however, has a tendency to lead a person too much to generalize or adopt a routine of practice for complaints, instead of prescribing according to particular symptoms.

1st. THE COURSE IN CHRONIC DISEASES.

IN diseases of long standing, or such as have assumed a chronic character, and such as are termed "anomalous," or those which do not assume a spe-

cific character and are difficult to detect, which is often the case even with the most experienced and learned physicians, the following course may be pursued.

In cases where the tongue is very much furred or the stomach disordered, give the

Emetic.

according to the directions under that head. The day after the emetic give the

Mandrake Physic;

at bed-time it is rather preferable to take it. After this has operated administer the

Restorative Wine Bitters;

and occasionally the *tonic tincture.* When there is any pain internally, chills or coldness of the system, showing a want of a proper circulation of the blood, add a tea-spoonful of the *capsicum* to the bitters, and give them as laid down under that head; where wine disagrees, an infusion or tea may be made of them, and drank as the stomach will bear.

The next step in order is, to bathe the whole surface of the body, feet and extremities with

Ley Water, or a weak solution of Sal Soda.

Sponge or flannel is very suitable for this purpose; when the patient is unable to sit up, it may be done in bed; raise the clothes with one hand and bathe with the other; at the same time let the patient drink freely of catnip tea. This opens the pores of the skin and frees the surface of viscid perspirable matter, which obstructs perspiration. The feet may be immersed in warm *ley water* before the body is bathed, particularly when they are habitually cold. This course may be repeated according to its effects. If the first course benefits, but does not remove the complaint, repeat, as a general rule, once or twice a week. In a majority of cases, however, the *emetic* may be dispensed with, or given occasionally; but the *mandrake physic* may be continued. Where the stomach is very weak, and it causes much nausea or sickness, the *anti-bilious* or *mandrake pills*, or *Culver's physic*, may be substituted, and given every other night.

2d. PAINFUL AND INFLAMMATORY DISEASES.

In fever, inflammatory rheumatism, colds, inflammation of the lungs, St. Anthony's fire, and other painful diseases, if the stomach is very much disordered, an *emetic* may be given: otherwise dispensed with. Next, in order to *equalize* the circulation, the patient may take the

Medicated Vapour Bath

as follows: Take a suitable quantity of herbs, such as *catnip*, *pennyroyal*, *spearmint*, and *tansy*, a double handful of each, and add a gallon or two of water: boil a short time, then put the whole into a suitable vessel, and place a narrow piece of board over it, on which let the patient sit, with his clothes off, and a blanket around him to retain the vapour; or the decoction may be placed under a cane or open-seated chair, on which the patient may

sit with a cover lid over or around him, to prevent the escape of the vapour Let the feet at the same time be immersed in warm *ley water*. Should there not be heat sufficient to produce perspiration, a hot stone, brick, or piece of iron, which should be in readiness, may be thrown into the decoction of herbs; and should there be too much heat, an opening may be made for its escape. At the same time give freely of warm

Catnip Tea.

In general a free perspiration will take place in fifteen or twenty minutes; after which rub the surface dry, and let the patient be put to bed and covered with a proper quantity of clothing. Should there be any faintness while using the vapour bath, a little cold water may be given; and, if it continues, he may be put to bed: in case there is not much perspiration, hot bricks, properly covered with cloth, and wet with vinegar, may be placed to the feet. When the sick person is unable to sit up long enough to be thus treated, perspiration must be excited in bed, which, in general, may be done by giving a portion of the diaphoretic powders, followed by warm *catnip* or other herb tea, and hot stones or bricks laid at the feet and sides. After the perspiration is over a portion of the

Anti-bilious Physic

may be given; *mandrake physic* is also very good. A complete course of this kind will, in general, be sufficient to remove a recent disease.

The *bilious physic* may be given in fever and urgent cases daily, and followed with means to promote perspiration, such as bathing the surface daily, herb tea, &c., sufficient to keep up a gentle moisture of the skin. Should the tongue continue very much coated or furred, give occasionally an *emetic*, and subsequently the *mandrake* physic or pills. In a majority of diseases the *emetic* or *vapour bath* may be dispensed with, the other means being sufficient. It is very important in all cases of fever, in a hot and dry state of the skin, to bathe the whole body once or twice a day with a *weak solution* of *sal soda* or *ley water*, and rub the surface with a coarse towel. The watchword must in all cases be MODERATION; avoid violence and excess.

In some cases, where medicine, after a fair trial, does not benefit, it may be best to discontinue it, or take very little, and rely upon nature, with diet, exercise, bathing, &c.—*See "bill of fare for invalids."*

When any part of the spine is tender, or any other part is painful, apply the *irritating* or common *strengthening plaster*, and, in acute cases, a *mustard plaster*. When there is *habitual coldness*, pain in the *stomach* or *bowels*, when the pulse is weak, veins small, and system languid, take stimulants: a little *capsicum* may be taken daily, or as occasion requires; from one-fourth to a tea-spoonful, in syrup, molasses, or sweetened water.

Illustrations.—In my large work I have given several hundred cases successfully treated according to the principles here laid down; most of these will be found at the end of this treatise. Those who desire more evidence to inspire confidence, must follow the practice which I have recommended, and then they will have *ocular demonstration* of its efficacy, *which seldom fails to convince.*

PART SIXTH.

VEGETABLE MATERIA MEDICA.

By *materia medica* is to be understood the nature, properties, and employment of those agents or articles used in the treatment of disease, and they, it will be seen, are principally derived from the vegetable kingdom, which abounds in medicinal productions of the choicest kind, and shows how ample is our vegetable *materia medica*, and how adequate to all needful purposes. How much more natural is it to look to the field and the forest for plants and roots to cure our complaints, than to dig in the bowels of the earth and procure certain metals, which prove poisonous and destructive even in obtaining them, and much more so after having been subjected to a chemical process. Both the untutored savage and the beast are taught, by reason and instinct, to use those vegetables which are scattered so richly around them, to relieve their diseases. Those who have travelled among the natives of all countries testify to these facts. The Indians of North America know how to treat their complaints, both in physic, surgery, and midwifery, related by Count La Salle, Washington Irving, Catlin, Lewis and Clark, and numerous others. It is the same in the East Indies, South Sea Islands, Patagonia, Africa, &c.

Bosman, in his Description of the Coast of Guinea, speaking of the different herbs employed by the natives, says; "I have seen several of my countrymen cured by these medicines, when *our own physicians were at a loss what to do.*" Again he says; "I have several times observed the negroes cure such extensive and dangerous wounds with these herbs, that I have looked on with amazement."

Le Vaillant also, in his Travels into the Interior Parts of Africa, gives an interesting account of the use of vegetable remedies by the savages of that country. Upon one occasion they cured him of a violent attack of quinsy, after he had given up his case as hopeless. His tongue and throat were so swelled that he could only speak by signs; and his breathing became so much impeded that he expected to be suffocated. In the meantime he was visited by a party of savages, who, feeling an interest in his situation, pledged themselves to cure him. He had at this time despaired of his life for nearly a week. The remedy was a hot local application of a certain herb. It was also to be used as a gargle. The poultice was renewed several times in the night, and the gargle still more frequently repeated. When day appeared he was greatly eased: he could breathe more freely, and the swelling and inflammation of the throat were abated. By the third day he found himself cured. He then went out to examine the plant by which he had been restored to health. "Nothing in the country," says he, "was more common; it grew all around the camp, and was to be met with in every direction." He

describes it as a species of sage, about two feet high, with a pleasant smell and balsamic taste.

Le Vaillant, abounding in gratitude, no doubt, for his unexpected cure, and regretting that so few of the plants which cover the surface of the globe should be unknown, says; "If there be any of real importance to us, we have been almost always indebted to savages, or even to beasts, for their discovery."

"The art of healing among the Sumatrans," says Marsden in his history of that country, "consists almost entirely in the application of simples, in the virtues of which they are *surprisingly skilled.* All the old men and women in the country are physicians, and their *rewards depend upon their success.*" Marsden also says; "The Sumatrans have a degree of botanical knowledge that surprises a European. They are in general, and at a very early age, acquainted not only with the names, but the qualities and properties of every shrub and herb among that exuberant variety with which their country abounds."

Order of Arrangement.—It is generally customary, in treating on this branch of medicine, to divide the various remedies or agents into classes: but as every plant possesses several or many properties, and cannot be classed into any definite medical order, but belong to several at the same time, a different arrangement is adopted in preference.

The following is the order which is adhered to in this work. 1st. Articles are treated of which are purely vegetable, such as medicinal plants, roots, bark, &c. 2d. Minerals, certain salts, &c.

Season of collecting Vegetable Medicines.—1st. Roots.—Roots must be collected in the spring, before the sap begins to rise, or in the fall after the top is dead.

2d. Barks.—Barks may be stripped from the tree or shrub any time when the sap prevents it from adhering to the wood. The exterior portion must be shaved off; the bark then cut thin, and dried in the shade.

3d. Medicinal Plants.—Medicinal plants should be collected while in blossom, and also dried in the shade; their virtues, however, are not essentially diminished any time before frost appears.

4th. Flowers and Seeds.—Flowers and seeds should be collected when they are fully ripe, and likewise dried in the shade. All vegetables, after having been dried, should be kept from the air, and preserved air-tight, or in a dry place. In this way they may be preserved for many years, without losing any of their medicinal properties.

Preparations.—1st. Extracts.—The best method to obtain all the strength and virtues of a plant or vegetable is, to mash them, to which add a little alcohol if necessary, press out the juice, and evaporate in the sun to the consistence of honey; then put it in jars, and cover tight with bladder or skin. This is the inspissated juice, and is much superior to extracts made by boiling.

Infusions or Teas.—Put a handful of the herb into a tea-pot, add one pint of boiling water, and let it stand fifteen or twenty minutes: dose, a full draught three or four times a day, unless differently prescribed. To promote perspiration, take it warm.

Decoctions.—Make the same as infusion; but continue the boiling till all the strength is extracted.

Component parts of Vegetables.—Plants are chymical compounds, prepared by the hand of nature; and, although despised by the foolish as simple, they are more ingenius than can be made by the greatest chymist in the world.

Nor will his productions bear any comparison with them as regards *beauty* or *medical properties;* and the reason is, because one is made by man, therefore imperfect; the other by the Creator, and therefore absolutely perfect. Vegetables in general contain *gum*, *fecula*, *gluten*, *sugar*, *resin*, *balsam*, *tannin*, *acid*, *wax*, *camphor*, and *albumen*.

TERMS OF CLASSIFICATION OF MEDICINES.

Narcotics are substances which diminish the actions and powers of the system, without occasioning any sensible evacuation. They have the effect of producing sleep.

Anti-spasmodics are medicines which have the power of allaying irritation and spasms.

Tonics are those articles which increase the tone of the animal fibre, by which strength is given to the system.

Astringents are articles which have the power of binding or contracting the fibres of the body.

Emetics are medicines which excite vomiting, independent of any effect arising from the mere quantity of matter introduced into the stomach.

Purgatives or Cathartics are medicines which increase the peristaltic motion of the intestines, and thereby produce a preternatural discharge.

Emmenagogues are those medicines which are capable of promoting the menstrual discharge.

Diuretics are those medicines which increase the urinary discharge.

Diaphoretics are those medicines which increase the natural exhalation by the skin, or promote moderate prespiration.

Sudorifics are those medicines which produce copious exhalations or sweating.

Expectorants are those medicines which increase the discharge of mucus from the lungs.

Sialagogues are those medicines which excite a preternatural flow of saliva.

Errhines are those medicines which increase the secretion from the nose and head, and excite sneezing.

Epispastics or Blisters are those substances which, when applied to the surface of the body, produce a serous or puriform discharge, by exciting a previous state of inflammation

Rubefacients are substances which, when applied to the skin, stimulate, redden, or inflame it.

Refrigerants, medicines which allay the heat of the body or of the blood.

Antacids remedies which obviate acidity in the stomach.

Litho tryptics, medicines which are supposed to have the power of dissolving urinary concretions in the bladder.

Escharotics or Caustics, substances which corrode or dissolve the animal solids.

Anthelmintics, medicines which have the effect of expelling worms from the intestines.

Demulcents, medicines which obviate and prevent the action of stimulating and acrid substances, by involving them in a mild and viscid matter, which prevents their action on the body.

Diluents, those medicines which increase the fluidity of the blood

Emollients, substances which soothe and relax the living fibre.

Alteratives. This term is applied to substances which are found to promote a change in the system favorable to recovery from disease, but not with certainty referable to any other class.

Counter-irritants, agents applied to the surface, which excite an eruption or an inflammation, and thus divert the humors from internal to external parts.

CLASSIFICATION OF ARTICLES.

The various articles composing the materia medica may be classed or divided as follows:

1st..	Medicinal	Plants.	6th.	Medicinal	Barks.
2d.	"	Roots.	7th.	"	Gums.
3d.	"	Flowers.	8th.	"	Oils and Balsams.
4th.	"	Seeds.	9th.	"	Salts.
5th.	"	Extracts	10th.	"	Minerals.
		11th. Medicinal Earthy Substances.			

No. 1. PLEURISY-ROOT. (*Asclepias Tuberosa.*) *The Root.*

Common Names.—ORANGE SWALLOW-WORT, PLEURISY-ROOT, BUTTERFLY-WEED, FLUX-ROOT, WIND-ROOT, WHITE-ROOT, SILK-WEED, CANADA-ROOT, &c.

HISTORY.—This plant is easily known by its bright orange-colored flowers, blossoming in July and August: it is a very ornamental plant. All the Asclepias are milky, but this is less so than the others.

LOCALITY.—It is found throughout the United States, but grows more abundantly in the southern states; it prefers open situations, poor and gravelly soils, along gravelly streams, and on hills.

PROPERTIES.—*Diaphoretic, expectorant, diuretic or astringent, carminative, anti-spasmodic, &c.*

EMPLOYMENT.—This root is a popular remedy for pleurisy, and is used in the form of tea to promote perspiration; it is also recommended for colic, flatulence, and lung complaints. I sometimes add it to our *pulmonic syrup* and give a strong tea in pleurisy.

No. 2. CHAMOMILE. (*Anthemis Nobilis.*) *The Flowers.*

Common Name.—CHAMOMILE.

LOCALITY.—Chamomile is a perennial plant, indigenous in the south of England, but cultivated in our gardens for medical purposes.

PROPERTIES.—Chamomile flowers are *anti-spasmodic, carminative, tonic &c.* They enter into one of our pectoral preparations; also into our *restorative cordial.* Chamomile flowers boiled down with milk, and applied to Mrs. H.'s neck cured her of a painful glandular swelling proceeding from cold.

EMPLOYMENT.—These flowers may be given in infusion or tea, which may be drank warm, to promote the action of emetics. It may be taken in wine in case of debility, and in the form of tea in pulmonary complaints; and, boiled in vinegar, may be used as a fomentation in painful glandular swellings. They give out their virtues both to water and spirits.



1. Pleurisy Root. (Asclepias Tuberosa.) 2. Chamomile. (Anthemis Nobilis.) 4. Aloe. (Aloe Spicata.)



6. Colrosh. (Actæa Racemosa.)



7. Burdock. (Actium Lappa.)



8. Asarabacca. (Asarum Canadense.)

No 3. Wild Chamomile. (*Anthemis Cotula.*)

Common Names.—Wild Chamomile, May-weed, Dogs' fennel, Dilly Dilweed, Field-weed, &c.

History.—It blossoms from June to November, affording a profusion of flowers in succession, of the size of chamomile, but never double. The whole plant has a strong smell, but not fœtid.

Locality.—Our plant is indigenous, and not naturalized, as mentioned by some botanists. It is spread all over the United States, from Main to Louisiana, but confined almost every where to open fields. It is never found in woods, but delights in the sun, road-sides, stony places, old fields, &c.

Properties.—The properties of this article are similar to the common chamomile, but weaker, and less pleasant to the taste. It may be substituted for it with safety. It is *sudorific. stimulant, anodyne, emetic, &c.* The external use in fomentations is proper in white swellings, rheumatism, hysteric fits, suffocations, piles, pains, and contusions. It acts always as a sudorific, promoting copious sweating, and is very beneficial to assist the action of emetics. In large doses it is emetic, but in small ones it is diaphoretic, and gently tonic. It is highly prized by country people, to promote prespiration in many incipient complaints.

Employment.—A tumblerful of the infusion may be given three or four times a day; and, to promote perspiration, it may be freely drank, and warm.

No. 4. Aloe. (*Aloe Spicata.*) *Juice of the Leaves.*

Common Name.—Aloe.

Locality.—The aloes is a perennial plant, of which there are many varieties, which grow in the south of Europe, Asia, Africa, and America.

Properties.—There are three kinds of aloes in commerce, viz., the socotorine, the hepatic, and the horse aloes; this last is used only for horses. The first is the kind generally made use of by physicians. It is a warm, stimulating purgative, operating with peculiar force upon the large intestines and particularly upon the rectum; and, by irritating the rectum, often producing piles, if given alone. It is good in habitual costiveness and in obstruction of the menses. It warms the habit and quickens the circulation. It enters into our formula for *dyspepsia*, "the *anti-dyspeptic* and *anti-bilious pills.*" It is the basis of many noted nostrums.

No. 5. Archangel. (*Angelica, Archangelica.*) *The Root, Stem, and Seed.*

Common Name.—Garden Archangel.

History.—This plant flowers in June and July, and the seeds are ripe in August.

Locality.—This is a biennial plant, and indigenous to the southern parts of France, but is cultivated in our gardens.

Properties.—It is administered with advantage in disorders arising from flatulence, and debility of the stomach and digestive organs. It is recommended in nervous headache pains. We use it in the form of infusion or tea for flatulence or wind. It may be given also for pain in the breast.

No. 6. Black Snake-root. (*Actæa Racemosa.*)

Common Names.—Black Snake-root, Squaw-Root, Rich-weed, Rattle-weed, Rattle Snake-root, Black Cohosh.

Description.—The black cohosh rises from four to six feet high, with white flowers, succeeded by shells, which contain the seed. The root is black externally, irregularly sloped, with many prongs and fibres.

History.—The American species has an extensive range, and was used by all the Indians. It blossoms in June and July; its seeds are ripe in August. The whole plant, and even the flowers, are possessed of medicinal properties.

Locality.—Found all over the United States, from Maine to Florida, Louisiana, and Missouri, Canada, and Texas; common in open woods, rich grounds, and on the sides of hills; not so common on rocky mountains and in sunny glades; very scarce in moist and swampy soils.

Properties.—It makes a good poultice for every kind of inflammation. A decoction may be made, and thickened with *slippery elm bark.* A syrup made of it is good for coughs; and a tincture, made by adding an ounce of it pulverized to one pint of spirits, may be given for chronic rheumatism, from a tea-spoonful to a table-spoonful three times a day.

Dr. Thomas Cooke, of the Reformed Medical School, Philadelphia, highly extols a *saturated tincture* of the *cohosh* in *hooping-cough;* dose for a child a year old, a tea-spoonful four or five times during the day, in water.

Dose.—Tincture, from twenty to thirty drops several times a day. As an astringent, give a strong tea or infusion. As a gargle, any quantity.

No. 7. Burdock. (*Arctium Lappa.*) *The Root and Seed.*

Common Name.—Burdock.

History.—This plant flowers in July and August, and is well known by the burs or heads, which stick to the clothes; the seeds ripen in September.

Locality.—This plant is indigenous to Europe, and naturalized in America. It grows abundantly in damp places, and along the sides of roads and around old buildings.

Properties.—It is used as an alterative. The seeds or the root enter into the *alterative syrup.* It is administered, in the form of decoction, in salt rheum, herpes, ulcers, and rheumatism, and in all diseases of the skin. Thornton recommends the use of this article in dropsy where more active articles cannot be used, "having known it to succeed in two dropsical cases where other powerful medicines had been ineffectually used."

The leaves, applied to the feet and forehead, are useful in febrile diseases.

Employment.—The root or seeds may be given in the form of a decoction or infusion, which is made by boiling two ounces of the fresh root in three pints of water to two; which, when intended as a *diuretic,* should be drank in the course of two days. The root enters into a medical beer, which is good to purify the blood; also the *alterative syrup.*

No. 8. Asarabacca. (*Asarum Canadense.*)

Common Names.—Broadleaf Asarabacca, Wild Ginger, Indian Ginger, Canada Snake-root, Heart Snake-root, Colts' foot.

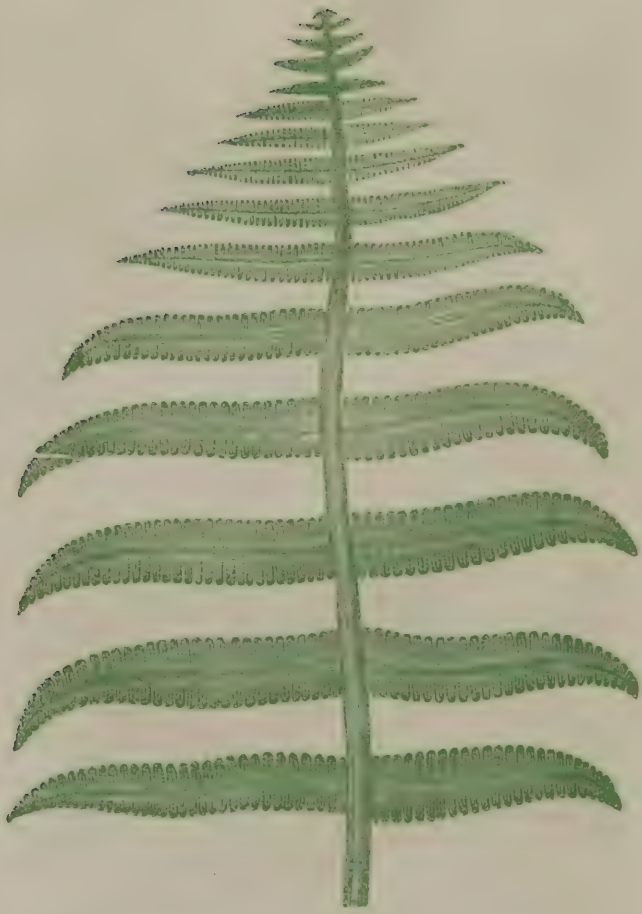
History.—This is an humble, stemless plant; the flowers are nearly



10. Indian Turnip. (Arum Triphyllum.)



11. Almonds. (Amygdalus Communis.)



12. Male Fern (Aspidium Filix Mas)

concealed in the ground. There are many varieties of this plant, with large and small leaves, rounded, spotted, and unspotted; the flowers vary also in colour, from greenish purple to dark purple. They blossom in May and June.

Locality.—This plant is indigenous to Europe; but is found from Canada to Carolina, and Missouri, in shady woods and in clay soils; more abundant on hills, in valleys, and moist soils.

Properties.—*Aromatic, stimulent, diaphoretic*, and *pectoral*. It has been used with success in intermittent fevers. The pulverized leaves make an excellent errhine, and enter into Henry's celebrated cephalic snuff. It is excellent for colds, coughs, and pulmonary diseases generally.

Employment.—The dose of this must be small, as it is apt to excite vomiting. It may be given, in the form of syrup or infusion, in all deep-seated coughs.

No. 9. Deadly Nightshade. (*Atropa Belladonna.*) *The whole Plant.*

Common Name.—Deadly Nightshade.

History.—This is a perennial plant, and flowers from June to August. Its fruit is ripe in September, when it is black.

Locality.—It is found growing in stony and shady places, along old walls and fences, and among old ruins.

Properties.—It produces heaviness of the head, vertigo, dilatation of the pupils of the eyes, &c. This plant, notwithstanding its poisonous quality, is used with great benefit, externally, in the cure of cancers, and in discussing indolent tumours in the breast of females. It enters into the *discutient ointment.*

Employment.—The leaves and roots, either green or dry, may be simmered in soft water until the strength is extracted; then the slippery elm bark may be stirred in till a poultice is formed. It may be applied to biles, and all hard, painful glandular swellings.

No. 10. Indian Turnip. (*Arum Triphyllum.*) *The Root.*

Common Names.—Three-leaved Arum, Indian Turnip, Dragon-root, Dragon Turnip, Pepper Turnip.

Description.—This plant rises from one to two feet in height; root perennial, round, flattened, tuberous, with many white fibres around the base; skin dark, wrinkled, and loose; leaves oval, three on each plant, pale beneath, with regular parallel nerves. The germs, when ripe, become berries of a very bright scarlet colour.

History.—This plant blossoms with us from May to July, and in the summer bears its bright scarlet berries.

Locality.—It grows all over North America, in woods and low moist soils. All soils and regions appear suited to this plant; but rich and shady grounds appear to suit it best.

Qualities.—The whole plant, and the root in particular, is possessed of a violent acrid, pungent, and even caustic taste.

Properties.—Indian turnip, when fresh, makes a powerful, strong, stimulating, acrid remedy. It makes an excellent poultice in scrofulous swellings; when dried and pulverized, it is a good remedy in coughs, canker, pains in the breast; and, given in tea-spoonful doses, it is a valuable remedy in colic. It is said to be very efficacious in cases of low typhus fever. "An ointment

made of the fresh root and lard is useful," says a writer, "in tinea capitis," (scald head.) It enters into the *irritating plaster.*

No. 11. Indian Hemp. (*Apocynum Cannabinum.*) *The Root.*

Common Names.—American Ipecacuanha, Indian Hemp, Indian Physic.

Description.—Stems of this plant, from one to several, about two feet in height, branched above, round, and of a redish colour; leaves numerous and ovate, hanging on footstalks; flowers terminal, forming a loose panicle, whitish, similar to buckwheat, which terminate in seed pods, resembling cucumbers, containing seeds; root composed of numerous long, brown, and slender branches, radiating from a thick tuber.

Locality.—This is a perennial plant, indigenous to the United States; grows in meadows and in low, moist woods.

Properties.—The root has been used with success in dropsy. Add one quart of water to one ounce of the root, and boil to one pint. Dose, a table-spoonful three or four times a day; measure the dose as the stomach will bear. This preparation cured Alderman Scott, of this city, of dropsy, and several others. It is somewhat laxative, and is used for indigestion, in the form of bitters.

No. 12. Male Fern. (*Aspidium Filix Mas.*) *The Root.*

Common Name.—Male Shield Fern.

Description.—Root horizontal: has a great many appendages placed close to each other in a vertical direction, while a number of small fibres strike downward; leaves large, oval, pinnate; pinnulæ close to each other, very long, and pinnatifid; petioles short, of a deep brown colour, and furnished with scales; fruit kidney form and rounded.

Locality.—This plant is perennial, and grows in great abundance in every part of Great Britian where the ground is not cultivated. It is found also growing on the mountains and among rocks, in New Jersey.

Properties.—Appears to be highly deleterious to intestinal worms, and particularly to the tape-worm. This article constitutes the basis of the celebrated specific of Madam Nomer for the tape-worm. There is much evidence that it has expelled the tape-worm: it is much given in Europe for this purpose. A table-spoonful of the powdered root may be given three or four times a day. Three days afterward give a strong purgative, or a tea may be freely drank. The oil of the same is highly recommended for the tape-warm.

No. 13. Marsh-mallows. (*Althæa Officinalis.*) *Root, Leaves, and Flowers*

Common Name.—Marsh-mallow.

History.—This is a perennial plant, flowering in June and July.

Locality.—Marsh-mallow is a plant indigenous to Europe, and grows plentifully throughout the United States; growing along the banks of rivers and marshy places.

Properties.—*Emollient* and *demulcent;* good in diseases attended with irritation and pain, especially of the urinary organs. They relax the passages in nephritic complaints, in which last case a decoction is the best preparation. Two or three ounces of the fresh roots may be boiled in a



13. Marsh Mallows (Althæa Officinalis.)



15. Spikenard. (Aralia Racemosa.)



17. Virginia Snake-Root. (Aristolochia Serpentaria.)

sufficient quantity of water to a quart, to which one ounce of gum Arabic may be added.

No. 14. Almond. (*Amygdalus Communis.*)

Common Name.—Common Almond.

History.—This tree flowers early in the spring, before the leaves have put forth; and it nearly resembles the peach tree.

Locality.—This tree originally came from Syria and Barbary, but is now much cultivated in the south of Europe.

Properties.—The oil of almond is serviceable in tickling coughs, hoarseness, &c. It acts likewise upon the urinary organs. In the scalding of urine and in the diseases of the kidneys, especially when combined with other remedies, it is peculiarly serviceable.

Employment.—It enters into one of our preparations for pulmonary diseases, denominated "cough drops," and which we find very useful: also into one called "diuretic drops," for diseases of the kidneys, urinary organs, &c

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No. 15. Spikenard. (*Aralia Racemosa.*)

Common Name.—Common Spikenard.

Description.—This plant rises four or five feet in height; leaves are many, small, and ovate, on long footstalks; main stalk of the size of the thumb, jointed, and purplish; flowers inconspicuous, very small, of a bluish colour, producing berries very much resembling those of elder, of a sweet, pleasant aromatic taste.

History.—It blossoms in July and August; its berries are ripe in September and October.

Locality.—Spikenard is found from New England to Carolina and Indiana, but is more common in the north than in the south; grows in deep woods and good soils. It is generally cultivated in gardens.

Qualities.—The root of this plant has a balsamic, fragrant, and warm aromatic, sweetish taste.

Properties.—The root of this plant is *healing*, *pectoral*, *stimulant*, *cordial*, and *diaphoretic*.

This plant is much used by the Indians. The roots, bruised, chewed, or pulverized, were used by them in all kinds of sores and ulcers. In colds and coughs the roots and berries may be used in syrups, cordials, and decoctions. Henry speaks very highly of the superiority of this medicine in gout of the stomach. The manner in which he prescribes this article is, by pouring a pint of brandy on a pint of the fresh berries, and let the whole stand by the fire for a week; then pour on a pint of rain water. Dose, a wine glassful three times a day. This article enters the "*restorative cordial;*" also the pulmonary balsam.

Employment.—It may be given in infusion, decoction, or syrup.

No. 16. Silk or Milk-weed. (*Asclepias Syriaca.*) *The Root.*

Common Names.—Common Silk-weed, Milk-weed.

Description.—This plant has a square stalk, rising, three feet high; leaves oval, smooth, and milky; flowers yellow, which terminate in pods resembling cucumbers, filled with a silky down; seeds somewhat resembling the

seeds of parsnip. The root is white, and of the size of the finger, about a foot in length.

Locality.—It grows plentifully throughout the United States, along the sides of roads and in sandy grounds.

Properties.—The root of this plant is a powerfal *diuretic*. Boil eight ounces of the root in six quarts of rain water to three; strain it for use. For the dropsy take a gill of this decoction four times a day, increasing the dose according to the effect. Those who are troubled with suppression of urine may take a tea-cupful of this decoction four times a day, sweetened with honey. This plant, it is stated, cured several convicts, in the state prison, laboring under dropsy.

No. 17. Virginia Snake-root. (*Aristolochia Serpentaria.*)

Common Names.—Snake-root, Birthwort, Virginia Snake-root, Snake-weed, Sangree.

Locality.—Found in shady woods, from New England to Florida and Missouri.

Qualities.—The root has an agreeable, penetrating, aromatic smell, somewhat similar to valerian; and a warm, bitterish, pungent taste.

Properties.—*Tonic* and *diapheretic*, and, therefore, good to promote perspiration and strengthen the stomach. It enters into the *sudorific tincture* or *sweating drops*. A tea may be given freely; warm, to sweat; cold, to strengthen.

No. 18. Barberry. (*Berberis Vulgaris.*) *Bush.*

Common Name.—Barberry.

History.—This shrub blossoms in April and May; the berries ripen in June, but they are sometimes abortive. The stamina of the flowers are irritable, and bend with elasticity toward the pistil when touched.

Locality.—It is found from Canada to Virginia, on mountains, hills, among rocks, &c.; common in New England, in rocky fields; rare in the west and in rich soils.

Qualities.—The whole shrub, even the root, is acid. In the berries this acid becomes very pleasant, and is probably the tartaric acid, but mixed with some astringency. The bark is yellow and bitter.

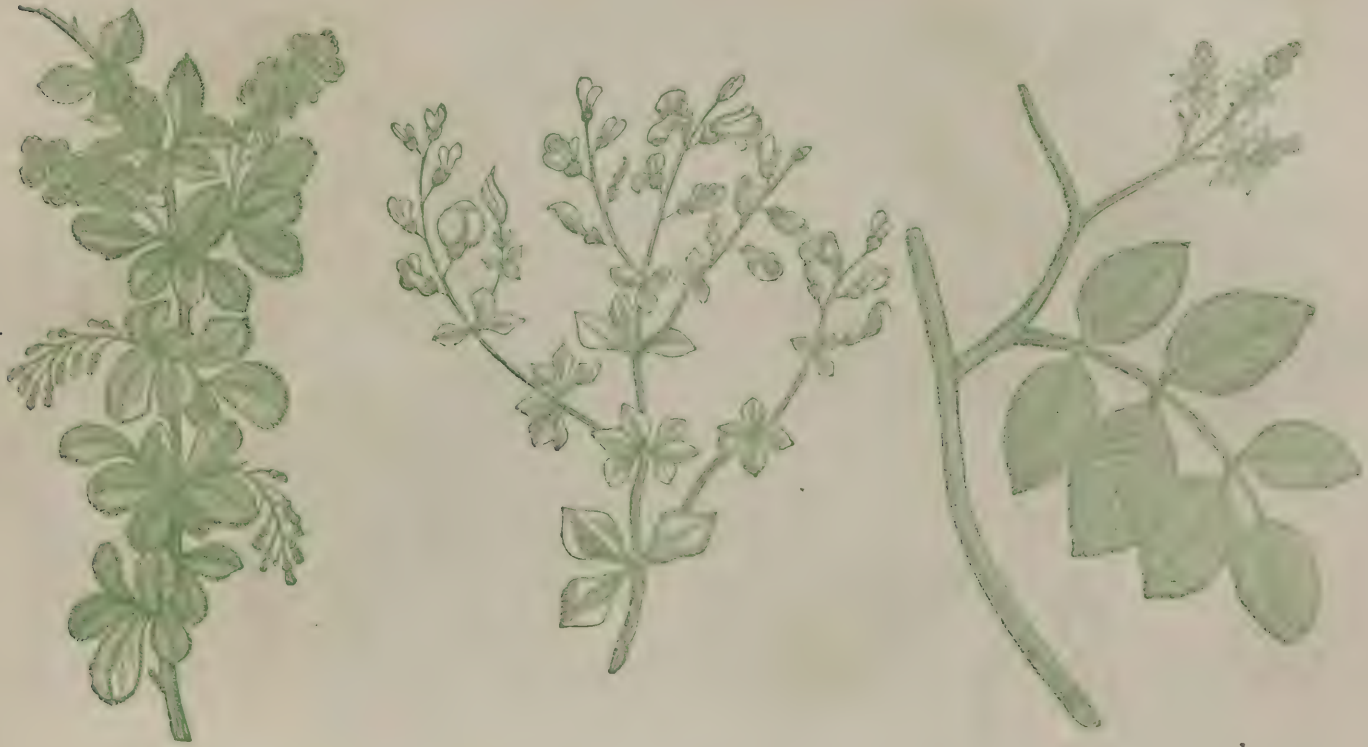
Properties.—*Antiseptic, acid, sub-astringent, refrigerant, &c.* Added to good hard cider, it is good in jaundice. The berries contain a very acid and red juice, which forms a pleasant and useful drink in fluxes and malignant fevers, for abating heat, quenching thirst, raising the strength, and preventing putrefaction. Prosper Alpinus says that, being attacked with a putrid fever, accompanied with a bilious diarrhœa, he attributes his recovery entirely to eating the fruit of the barberry. Simon Pauli gives a similar account of the use of the berries. J. Bauhin recommends the same remedy in dysentery.

Employment.—Made into syrup, infusion, or decoction. We add to it hard cider, and give it in jaundice.

No. 19. Black Snake-root. (*Radix Anapodaphyllon Nigrus.*)

Description.—This plant rises three feet in height; leaves similar to the leaves of crow-foot, blossoms small and blue.

History.—This aromatic plant grows in meadows and low woods, among



21 Copriba. (Copaifera Officinalis.) 20. Wild Indigo. (Baptisia Tinctoria.) 18 Barberry. (Berberis Vulgaris.)



22. Capsicum.



23. Cicuta. (Conium Maculatum.)

rocks; the root is about the size of a small quill; fibrous; of a black or purple color, smell strong, and very aromatic.

Medical Virtues.—It is an excellent *sudorific*, *aromatic*, and *emmenagogue*.

Employment.—In all fevers, colds, obstructed menses, pleurisy, &c.; make a tea, and give freely; at the same time bathe the feet, to produce perspiration.

No. 20. Wild Indigo. (*Baptisia Tinctoria.*)

Common Names.—Indigo Broom, Wild Indigo, Indigo-weed, Horseflea-wzed, Yellow Broom, Clover, Broom, Rattle Bush, Yellow Indigo.

History.—This plant has the appearance of a small shrub or broom It blossoms in July and August. The whole plant (even the flowers) often becomes black in the fall, or in a herbarium. It dies a kind of blue like indigo, but it is inferior. The young shoots of this plant are eaten in New England, like those of poke; and, like this latter article, they are of a drastic nature.

Locality.—Found all over the United States, from Maine to Louisiana and Illinois, in woods and on hills. It prefers dry and poor soils.

Properties.—*Astringent*, *antiseptic*, *purgative*, *emetic*, and *stimulant*. This plant, in the form of poultice, is very efficacious in inflammatory affections, bordering upon gangrene. The corticle part of the bark is that which we use. It is good in syphilitic ulcers; also for almost every sore, such as malignant ulcerous sore mouth and throat, mercurial sore mouth, sore nipples, chronic sore eyes, &c. It may be used externally, in strong decoction, as a wash, fomentation, poultice, or ointment, with lard or cream. It forms the basis of our *yellow salve*, which is very useful in various kinds of ulcers.

Employment.—For a poultice make a strong decoction, and thicken with *slippery elm bark*.

No. 21. Copaiba. (*Copaifera Officinalis.*)

Common Name.—Officinal Copaiba.

Locality.—This tree is a native of the Spanish West Indies and of some parts of South America. It grows to a large size; and the resinous juice is obtained by making incisions in the trunk of the tree.

Qualities.—The balsam is a liquid of an oily consistence, transparent, of a yellowish white colour, of a strong and disagreeable smell, and of an acrid and bitter taste.

Properties.—The balsam has been much used as a cooling *diuretic* and *astringent*; but the manner in which it has been used renders it less efficacious than it might be. It enters into one of our preparations, the *diuretic drops*; and we have used it in this manner with particular benefit.

No. 22. Cayenne Pepper. (*Capsicum Annuum.*)

Common Names.—Jamaica Pepper, Red Pepper.

History.—This plant is a native of South America, and is raised in the West Indies. It will likewise ripen its fruit in the United States.

Properties.—Capsicum is one of the purest and strongest *stimulants* with which we are acquainted; also *carminative*, *tonic*, and *diuretic*. It is good

to remedy flatulency arising from eating vegetable food, and likewise to warm the stomach. It is used in rheumatism and coldness of the system. In malignant sore throat capsicum is much used, both as a gargle and as an internal remedy. Two table-spoonsful of the small red peper, or three of the common *Cayenne pepper*, and two tea-spoonsful of fine *salt*, to be beat into paste, on which half a pint of boiling water is to be poured, and strained off when cold; an equal quantity of very sharp vinegar being added to this infusion. A table-spoonful every hour is a proper dose for an adult. Mr. Stephens gave it to four hundred patients labouring under this disease; "and it seemed," says he, "to save some whose state had been thought desperate."

Employment.—It may be employed in the form of powder, in half tea-spoonful doses, given in molasses. Of the tincture give a tea-spoonful in plenty of water. Of the tea a table-spoonful occasionly, or according to the symptoms. For pains externally, bathe the parts freely with the tincture. It is useful in coldness of the system, fever and ague, colic, wind, &c, The West India or African capsicum is the best.

No. 23. Cicuta. (*Conium Maculatum.*)

Common Name.—Hemlock.

Locality.—This plant is indigenous to Europe, but now naturalized in New England, New York, Pennsylvania, Virginia, Ohio, &c. Mostly found in old fields, near roads and fences, on the banks of rivers, &c.

Properties.—This is a powerful acrid *narcotic* and *resolvent*. It is not dangerous in very small doses, often repeated and gradually increased. It is also *anodyne*, *sedative*, and *anti-spasmodic;* useful to allay pain in acute diseases. In *scrofulous* tumours it is a useful article. We, however, seldom use it as an internal remedy. It enters into our *discutient ointment.*

Employment.—In the form of extract, and made into pills, half the size of a small pea, given twice a day, is good to discuss scrofulous and cancerous tumours of the breast, and also applied externally in the form of a poultice. The plaster is also good for tumours and swellings. For scirrhous tumours take inspissated juice of hemlock, or the extract, wax, and rosin, of each two parts; olive oil, one part; melt, and spread on leather.

No. 24. Colocynth. (*Cucumis Colocynthis.*).

Common Name.—Bitter Cucumber.

Locality.—An annual plant, native of the Levant, and cultivated in gardens.

Properties.—Colocynth is one of the most powerful and active cathartics. When given alone, it is apt to occasion severe griping. It enters into the "*anti-dyspeptic pills.*"

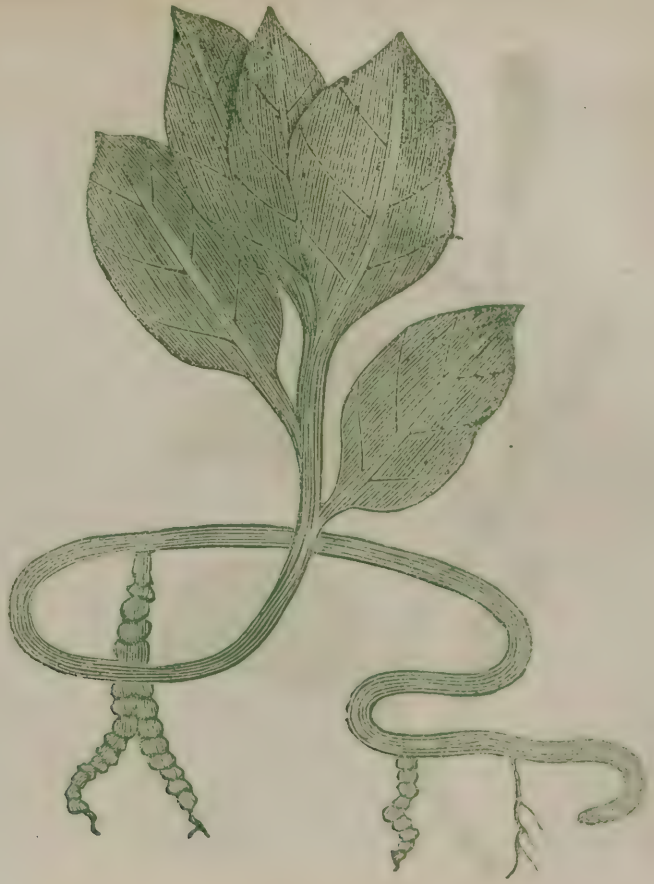
No. 25. Celandine. (*Chelidonium Majus.*)

Common Name.—Great Celandine.

Description.—This plant rises two or three feet in height, has many tender, round, green, watery stalks, with large joints, very brittle and transparent; leaves large, serrated, and very tender; and the flowers, consisting of four leaves, yellow; after which come long pods, which, when pressed by the fingers, fly into pieces instantly.



25. Celandine. (Chelidonium Majus.)



27. Ipecacuanha. (Callicocca Ipecacuanha.)



28. Jalap. (Convolvulus Jalapa.)



31. Swamp Dogwood. (Cornus Sericea.)

Locality.—This plant grows in meadows, by the sides of running brooks, and in low, marshy places; found throughout the United States.

Properties.—The properties of this plant are *acrid, stimulant, anti-herpetic, detergent, diuretic,* and *discutinent.* The juice, rubbed on warts, removes them; cures ringworms and cleanses old ulcers. We make use of it only for the piles, salt rheum, or tetter, in the form of tincture and ointment.

Employment.—An ointment of the roots is made by boiling them in hogs' lard, and is useful in the piles. The tincture may be made by digesting one ounce of the plant in one pint of spirits.

No. 26. Golden Thread. (*Coptis Trifolia.*)

Common Names.—Common Gold Thread, Mouth-root.

History.—This plant flowers early in the spring of the cold regions, or in May; they are of a fine golden colour, whence they derive their name. They ought to be collected in the summer, and are easily dried, but not easily pulverized.

Locality.—Found from Canada to Greenland and Iceland on the east, and to Siberia on the west. The most southern limits are New England, New York, and the shores of Lake Erie. It is commonly found in mossy swamps and bogs of evergreen woods: but likewise on the rocks of the White Mountains, Labradore, and Newfoundland.

Properties.—*Tonic* and *stomachic*, promoting digestion and strengthening the viscera; useful in *dyspepsia, debility,* and *convalescence* from fevers. It is much used as a gargle in *ulceration* of the *mouth.*

No. 27. Ipecacuanha. (*Callicocca Ipecacuanha.*) *The Root.*

Common Name.—Ipecacuanha.

Locality.—Ipecacuanha is indigenous to South America.

Employment.—In large doses, thirty grains, is an easy and good *emetic*, without causing debility. In small doses, two or three grains, it acts as a *tonic*, strengthening the digestive organs, and is useful in indigestion, bilious and liver complaints. It is good also in fevers, by keeping up a determination to the surface. It may be given in powder, or formed into pills, with soap, molasses, or mucilage of gum Arabic. We give it, in general, combined with *lobelia.* A wine tincture makes a good expectorant, particularly for children. Add of the root, bruised, one ounce to one part of Malaga wine: dose for a child a year old one or two tea-spoonsful. A syrup made of it is also very good. It enters into the *emetic* and *diaphoretic powders;* also the *sudorific drops.*

No. 28. Jalap. (*Convolvulus Jalapa.*) *The Root.*

Common Name.—American Jalap.

Locality.—Jalap is a plant indigenous to Mexico and Vera Cruz, and brought to us thence. I have had this plant growing in my garden, but our climate is rather too cold to cultivate it.

Properties.—The root of this plant is a brisk cathartic, acting in a remarkably efficacious manner, without griping upon the whole alimentary canal. It enters into the *anti-bilious physic;* also the compound tincture of

senna. It possesses great anti-bilious and detergent properties. Twenty-five grains of jalap, united with from forty to sixty grains of cream of tartar, form a powerful cathartic and hydragogue, and are more effectual in evacuating water than any preparation I am acquainted with.

Employment.—The pulverized root, in the dose of thirty grains, acts as a safe and efficacious cathartic. This is one of the most valuable roots produced in America.

No. 29. Peruvian Bark. (*Cinchona Officinalis.*)

Common Name.—Peruvian Bark.

Description.—The tree which produces the bark varies in size. Woodville describes it as being a very lofty tree, and sending off large branches; its leaves are oblong, three inches in length, and about an inch and a half in breath.

History.—There are commonly enumerated three varieties of Peruvian bark, viz: 1. The common, the yellow of some authors. 2. The yellow, the orange of some authors. 3. The red.

The use of this bark was first learned from the following circumstance: Some cinchona trees being thrown by the winds into a pool of water, lay there till the water became so bitter that everybody refused to drink it. However, one of the neighbouring inhabitants, being seized with a violent paroxysm of fever, and finding no other water to quench his thirst, was forced to drink of this, by which he was perfectly cured. He afterward related the circumstance to others, and prevailed upon some of his friends who were ill of fevers, to make use of the same remedy, with whom it proved equally successful. After this it was taken to Europe by the Jesuits, and hence called "Jesuits bark." The use of Peruvian bark was first discovered, like most other remedies, by accident, or rather Providence.

Locality.—Grows in South America.

Employment.—The red and yellow kinds are the best, but it is often adulterated. It may be used in form of powder or wine tincture, combined with stimulants, or the *quinine*, a production of it. It is not, however, so certain in its effects. Properly administered, it is a sure remedy for *chills* and *fever*. We give it in the form of the wine tincture, which always cures, if the bark is genuine.

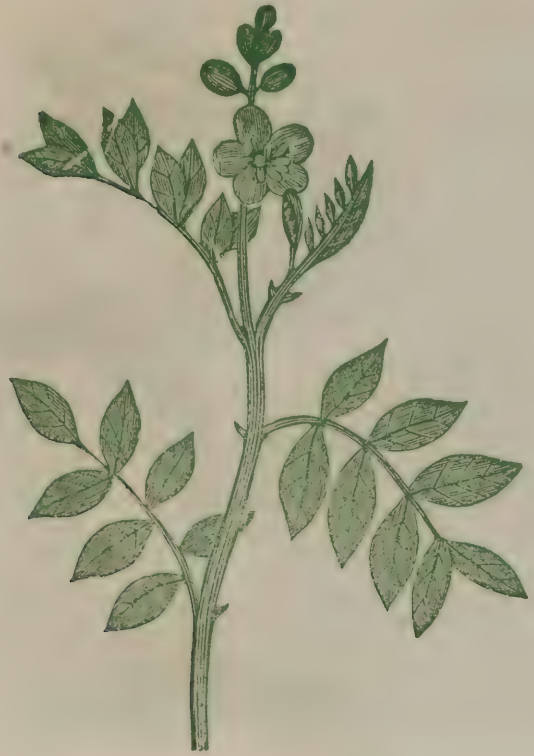
No. 30. Dogwood. (*Cornus Florida.*) *The Bark.*

Common Names.—Large-flowered Cornel, Virginia Dogwood.

History.—This tree is one of the chief ornaments of our forests. It is rather below the middle stature, not usually reaching the height of more than twenty or thirty feet. It is, however, among the most conspicuous trees in our forests. In the months of April, May, June, according to its latitude, it is covered with a profusion of its large and elegant flowers.

Locality.—This tree is found throughout the United States, but more plentifully in the middle states.

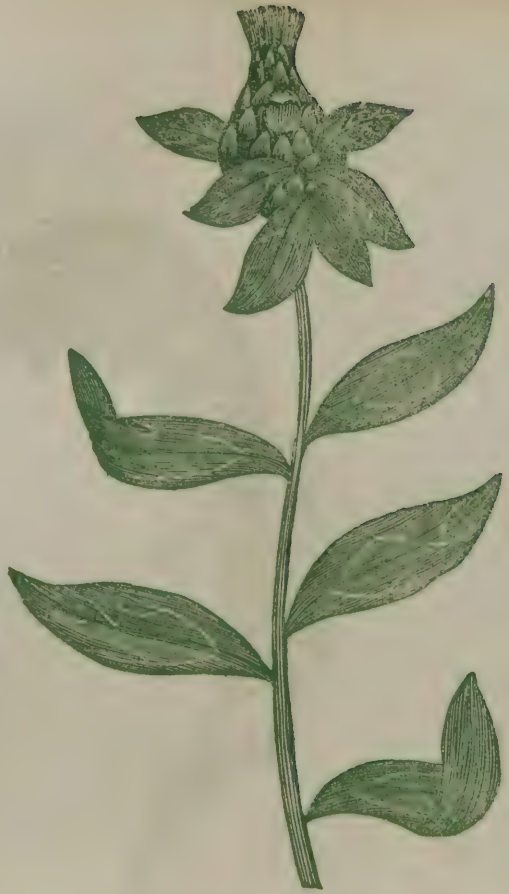
Properties.—It is *tonic*, and may be used as a substitute for the Peruvian bark. Give a strong tea of the flowers or bark.



32. Senna. (Cassia Senna.)



33. Solomon's Seal. (Convallaria Multiflora.)



34. Saffron. (Crocus Sativus.)



35. Ladies' Slipper. (Cypripedium Pubescens.)

No. 31. Rose Willow. (*Cornus Sericea.*) *The Bark.*

Common Names.—Round-leaved Dogwood, Green Osier, Red Rod, Red Willow, Swamp Dogwood.

Locality.—It grows near brooks, along the banks of rivers, and on upland meadows; it is known throughout the United States by the name of red rose willow, or swamp dogwood.

Properties.—*Tonic* and *astringent.* In vomiting this is an excellent remedy, given in form of an infusion, particularly in the vomiting arising from pregnancy and diseased uterus. This is a valuable article.

No. 32. Senna (*Cassia Senna.*) *The Leaves.*

Common Name.—Alexandria Senna.

Description.—The stalk rises from two to four feet high, resembling a shrub, and sending out hollow woody stems; flowers yellow; leaves small and running to a point, of a pale green. The East India senna is the kind generally used, but is entirely a different article, and not to be compared with the Alexandria. I procure the best quality, and have it ground, which makes a handsome green powder, which is valuable. It also enters into the *electuary* of *senna*, and is used in the form of tea, combined with *manna.*

Locality.—Grows in the Levant, Egypt, North of Africa, and up the Mediterranean.

Properties.—This is a very useful cathartic, operating effectually and mildly. It is necessary to combine this article with other ingredients, to prevent its griping effects. It enters the *anti-bilious physic*, and the worm or vermifuge powders.

No. 33. Solomon's Seal. (*Convallaria Multiflora.*) *The Root.*

Common Name.—Solomon's Seal.

Description.—This plant rises six or seven inches high; leaves lanceolate, and of a dark green color; flowers in umbels, and hang on the sides of the stalks, producing red berries.

Locality.—It grows on the sides of meadows, high banks, and mountains, in every part of the United States.

Properties.—The roots are *astringent*, *incrassant*, and *corroborant.* The mucilage of the roots is good when applied to inflammations and piles. The roots are useful in all cases of *fluor albus* (*whites,*) and in immoderate flowing of the menses, arising from female weakness. It enters into the *restorative cordial.*

Employment.—*Externally*, as a poultice; *internally*, as above directed.

No. 34. Saffron. (*Crocus Sativus.*)

Common Name.—Garden Saffron.

Locality.—This plant is a native of the Levant, and cultivated in Europe and in this country.

Properties.—In small doses, saffron is employed as a *diaphoretic*, causing perspiration. It enters into the *sudorific drops.*

Employment.—In the form of tea, very valuable in all eruptive diseases, measles, small-pox, &c.

No. 35. Ladies Slipper. (*Cypripedium, Pubescens.*)

Common Names.—Yellow Ladies' Slipper, Moccasin Flower, Yellow Umbel, Nerve-root, &c.

Locality.—It is common on the hills and in the swamps of New-York, and is found throughout the United States.

Properties.—Ladies' slipper root is a *sedative*, *nervine*, and *anti-spasmodic*, and may be used as a substitute for valerian. Dose, a tea-spoonful of the powder occasionally in tea, or a table-spoonful of the tincture in water. I think that the foreign valerian is better; as a nervine I seldom or never use American.

No. 36. Camphor. (*Laurus Camphora.*) *The Gum.*

Common Name.—Camphor Tree.

Description.—A large tree, native of the forests on the north-western coast of Sumatra; and from the *laurus camphora*, Lin, a tree growing in China and Japan.

Locality.—Native of the north-west coast of Sumatra, and of China and Japan.

Properties.— Camphor is *stimulant*, *sudorific*, and *anti-spasmodic*. Useful internally and externally.

Employment.—Given in the form of powder, emulsion, or tincture. By triturating it with a few drops of alcohol, it is easily pulverized.

The dose of camphor is, from two grains to one scruple; of the tincture, from ten to twenty drops, in water.

Gum camphor is very valuable It enters into the *sweating drops*, the *diaphoretic powders*, the *rheumatic liniment*, *black salve*, *&c.*

No. 37. Wild Carrot. (*Daucus Carota.*) *The Seeds and Roots.*

Common Name.—Wild Carrot.

History.—This plant is indigenous, and flowers in July and August; seeds ripe in September.

Locality.—This plant (the wild) grows in many parts of the United States, and is found by the sides of old fields and uncultivated grounds.

Properties.—This plant is *diuretic*, acting particularly upon the urinary organs. Given in strong decoction, it is very useful in *gravelly* complaints, and in the passage of the *stone* from the *kidneys* and *bladder*.

Employment.—For *gravel* take a strong tea, warm, through the day. It removed an enormous quantity of gravel in one case, and cured the person.

No. 38. Fox-glove (*Digitalis Purpurea.*) *The Leaves,*

Common Name.—Fox-glove.

History.—This plant seldom flowers before July, and the seeds are ripe in August.

Locality.—This plant grows on dry sandy ground for the most part, on the high as well as the low places. This is a biennial plant, indigenous to Europe, but flourishes well in America.

Properties.—*Sedative* and *diuretic*, diminishing the activity of the *pulse* and the general *irritability* of the *system*, and increasing the *action* of the



36. Camphor Tree. (Laurus Camphora.)



37. Wild Carrot. (Daucus Carota.)



38. Foxglove. (Digitalis Purpurea.)



39. Stramonium.



40. Boneset. (Eupatorium Perfoliatum.)

absorbents and the discharge of urine. In *hydrothorax* or *dropsy* in the *chest* this medicine is very useful.

EMPLOYMENT.—Add half a pint of boiling water to a tea-spoonful of the leaves. For dropsy give a table-spoonful every two hours. It never fails to increase the discharge of urine and afford relief.

No. 39. THORN APPLE. (*Datura Stramonium.*) *The Leaves and Seeds.*

Common Names.—COMMON THORN APPLE, JAMESTOWN-WEED, JIMSON, STINK-WEED, &c.

HISTORY.—This plant blossoms from May to September in the southern states, and from July to October in the northern, bearing blossoms when the seeds of the first flowers are ripe. It is killed by the frost with us; but in warmer climates it becomes a semi-biennial plant.

LOCALITY.—This is one of the wandering plants, common to all parts of the world, and spreading with the utmost facility. Probably of Persia and India.

EMPLOYMENT.—Stramonium, green or dry, simmered in water and thickened with *elm bark*, makes an excellent poultice for inflammatory and painful swellings of the glands, eyes, breasts, groin, &c. The ointment is good for piles, burns, &c. Inspissated juice, in doses of two grains, twice a day, is good for epilepsy and other fits.

No. 40. BONESET. (*Eupatorium Perfoliatum.*) *The Leaves and Flowers.*

Common Names.—BONESET, THOROUGHWORT, JOEPYE, TEAREL, FEVERWORT, SWEATING PLANT. THOROUGH-STEM, CROSSWORT, INDIAN SAGE, AGUE WEED, THOROUGHWAX, VEGETABLE ANTIMONY.

HISTORY.—A very striking plant, easily recognized among all others, even when not in bloom, by its connate leaves perforated by the stem. This plant blossoms from August to October.

LOCALITY.—Common in meadows and swamps, near streams. Found growing throughout the United States, from Maine to Florida, from Ohio to Louisiana.

PROPERTIES.—*Emetic, cathartic, sudorific, tonic, &c.* This plant possesses very active remedial properties, according to the dose in which it is administered. It has been given in intermittent fever with complete success, either in infusion, decoction, or powder. Dr. Anderson states that this article was used in nearly every case of intermittents that occurred in the alms-house in 1812, instead of the Peruvian bark, and it proved uniformly successful. Drs. Bard and Hosack speak very highly of this plant as a diaphoretic, in the cure of *yellow fever*; is a very good tonic in dyspepsia, used cold. A warm infusion of this plant, drank previous to taking an emetic, assists its operation, and causes the patient to vomit with more ease. For dyspepsia use the tea, cold, through the day.

No. 41. CLOVES. (*Eugenia Caryophyllata.*)

Common Name.—CLOVES

HISTORY.—This is a beautiful tall tree, a native of the Molucca Islands. Cloves are the flower-buds, which are gathered in October and November, before they are open, and dried in the sun.

PROPERTIES.—Cloves are among the most stimulating of the aromatics.

They are employed principally as adjuvants to other medicines, particularly in combination with bitters or with the vegetable cathartics. The essential oil is used with the same intention and as a local application to severe tooth-ache. We make use of the pulverized cloves as an aromatic in our "*anti-bilious physic*," and the essential oil enters into our "*anti-dyspeptic pill.*" Cloves also enter into some others of our preparations, particularly for some forms of bowel complaints.

No. 42. Asafœtida. (*Ferula Asafœtida.*) *The Gum.*

Common Name.—Asafœtida.

Locality.—A perennial plant, indigenous to Persia. It has been raised in the botanical garden in Edinburgh.

Properties.—The gum of this plant is very useful in *hysterics* and other nervous disorders. It is efficacious in *spasmodic asthma.*

Dr. Walcott states that he cured a case of spasmodic asthma of nine years' standing, which had resisted the treatment prescribed by other practitioners, by administering the asafœtida in the form of a pill or bolus, ten grains three times a day; also the following expectorant: Squills in powder, thirty grains; gum ammoniac, one and a half drachms; extract of hemlock, (cicuta,) thirty grains; made into thirty pills, of which the patient took one or two every six hours, until a slight giddiness was felt. He also smoked stramonium leaves and tobacco.

No. 43. Gamboge. (*Cambogia.*) *The Gum.*

Common Name—Gamboge.

Locality.—The tree that furnishes the gamboge is of middling size and grows wild in the kingdom of Siam and in Ceylon, and on the peninsula of Cambodia. The gum is obtained by making incisions in the bark of the tree, from which the juice exudes and concretes.

Properties.—Gamboge evacuates powerfully both upward and downward. In small doses it acts as a mild laxative. Gamboge enters as one of the articles in the *anti-dyspeptic pill.*

No. 44. Gentian. (*Gentiana Lutea.*) *The Root.*

Locality.—Gentian is a perennial plant, indigenous to Europe, growing upon the Alps, Appenines, Pyrenees, and other mountains in the temperate parts of Europe. It blossoms in May.

Properties.—Gentian is a very useful tunic. In *dyspepsia* this article has obtained much celebrity, and not without foundation. It is given in conjunction with other tonics and astringents, which appear to increase its value. The extract of gentian enters the *anti-dyspetic pills*, and is one ingredient in the restorative bitters.

No. 45. Guaiacum. (*Guaiacum Officinale.*) *The Gum and Raspings*

Common Name.—Guaiacum.

Locality.—This tree is a native of the West Indies.

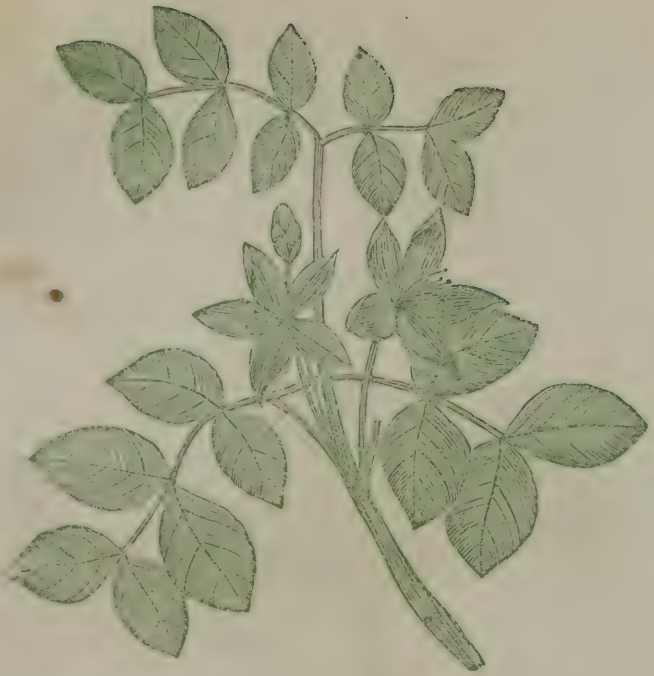
Properties.—Both the wood and resin of guaiacum possess diaphoretic and alterative properties. It is employed in *gout, chronic rheumatism*, and



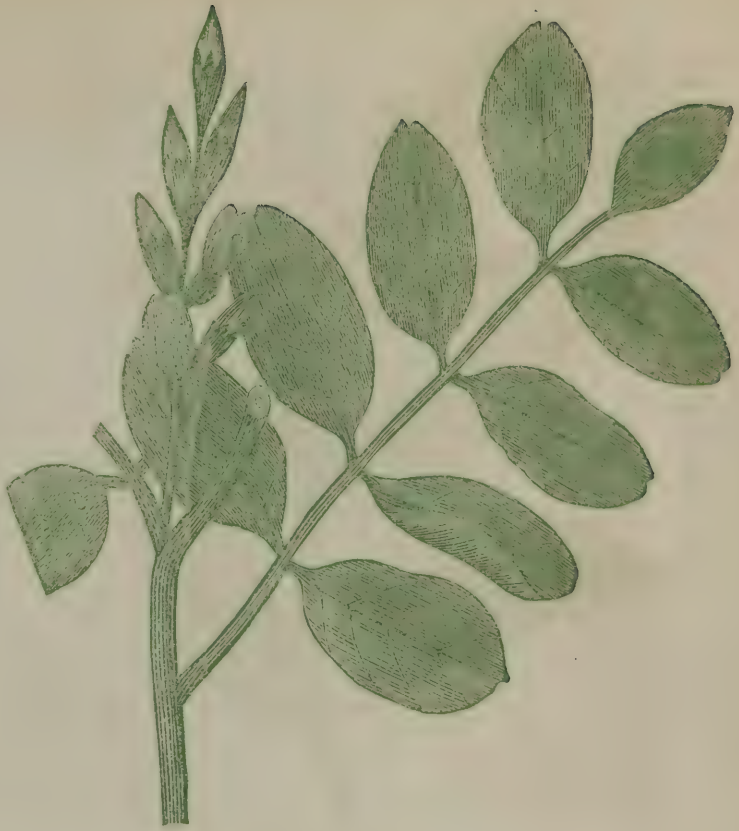
41. Cloves. (Eugenia Caryophyllata.)



44. Gentian. (Gentiana Lutea.)



45. Guaiacum. (Guaiacum Officinale.)



47. Liquorice. (Glycyrrhiza Glabra.)

affections of the skin in old and very obstinate *venereal ulcers*, scrofulous affections, &c.; in rheumatism, particularly that arising from the use of mercury; in gout, &c. Dr. Chapman, of Philadelphia, in his Therapeutics, speaks very favourably of this article in diseases of the eyes. The raspings of guaiacum enter into the alterative syrup. It is well calculated to remove the mercurial disease.

No. 46. Crane's bill. (*Geranium Maculatum.*) *The Root.*

Common Names.—Spotted Crane's bill, Crowfoot, Alum-root, Tormentil, Storkbill.

History.—This is a very pretty plant, blossoming in the spring, from May to July. The best time for collecting this plant is in the fall.

Employment.—It is a good astringent; useful in bleeding, internally or externally; also from the lungs, womb, &c. A decoction of beth-root and crane's bill is excellent for flooding, whites, &c. A tea of crane's bill, sweetened with honey, is said to be a superior remedy for hooping-cough.

No. 47. Liquorice. (*Glycyrrhiza Glabra.*) *The Root.*

Common Name.—Sweet Liquorice.

Locality.—Liquorice is a perennial plant, and indigenous to the south of Europe. It is likewise cultivated in England for medical use.

Properties.—The root of this plant is at present used principally to alleviate coughs and inflammation of the lungs.

Employment.—Dr. Sawyer, of Cleveland, Ohio, a graduate of our school, states that the following preparation cured him of a very deep-seated cough, bordering on consumption: Take liquorice-root, lung-wort, Iceland moss, equal parts. Make a strong decoction, sweeten with rock candy, and take as much as the stomach will bear.

No. 48. Hellebore. (*Helleborus Niger.*) *The Root.*

Common Name.—Black Hellebore.

History.—About Christmas, if the weather be temperate, this plant flowers. The flowers appear upon footstalks; flowers consisting of five large round white petals, each of which are purple, sometimes on the edges.

Locality.—This is a perennial plant, growing in the mountains of Vasges, Dauphine, and Provence.

Employment.—Dose of the powdered root from ten grains to a scruple; of the infusion, two drachms to one pound of boiling water, one ounce of which is given every four hours.

For obstructed menses take equal parts of the tincture of hellebore and tincture of logwood, of which let one or two tea-spoonsful be taken three or four times a day.

No. 49. Golden Seal. (*Hydrastis Canadensis.*) *The Root.*

Common Names.—Yellow Puccon, Yellow-root, Ground Raspberry, Yellow Paint, Golden Seal, Orange-root, Indian Plant, &c.

Locality.—From Canada and Maine to Carolina and Tennessee, in rich shady woods on the banks of rivers, sides of hills, and deep valleys

PROPERTIES.—It is *tonic*, and at the same time *laxative*, which makes it very appropriate in dyspeptic disorders.

EMPLOYMENT.—It enters into the "wine bitters" and "tonic tincture."

No. 50. HOPS. (*Humulus Lupulus.*) *The Fruit.*

Common Name.—GARDEN HOPS.

EMPLOYMENT.—The saturated tincture of hops relieves pain, in teaspoonful doses. It is very good for "after pains," and in cases where opium cannot be taken. Boiled in vinegar and water, makes an excellent fomentation to relieve pain of the bowels, head, and other parts. The extract or pollen of hops may be given as an *anodyne*.

No. 51. WITCH HAZEL. (*Hamamelis Virginica.*) *The Bark.*

Common Names.—WINTER WITCH HAZEL, WITCH HAZEL, SNAPPING HAZELNUT, WINTER-BLOOM, PISTACHE-NUT, &c.

HISTORY.—This shrub blossoms in winter, when no other tree is in bloom. The blossoms remain from October till February. The fruit remains on throughout the whole year till the next fall, and then explodes with a noise, scattering the seeds around.

LOCALITY.—Found from New England to Carolina and Ohio, commonly on hills and mountains, near stony banks of streams; rare in plains, &c.

EMPLOYMENT.—This article may be applied externally as a poultice in ulcers, &c.; and in the form of a strong decoction as an injection into the vagina for prolapsus or falling down of the womb; and as a wash for falling of the intestine.

No. 52. LIVERWORT. (*Hepatica Triloba.*) *The Plant and Root.*

Common Names.—COMMON LIVERWORT, LIVER-WEED, TREFOIL, NOBLE LIVERWORT.

HISTORY.—This is a vernal plant: the leaves stand the winter, and early in the spring the flowers come out, sometimes while the snow is yet falling. They last from March till May.

LOCALITY.—This plant is a native of the northern parts of Europe, Asia, and America; growing on this last continent from Labradore to Virginia and the Pacific Ocean; found in woods, on hills, and mountains throughout the United States.

PROPERTIES.—*Subtonic, subastringent, deobstruent, pectoral*, and *demulcent*. It may be used in fevers, liver complaints, indigestion, hypochondria, &c. It is useful for hemoptysis (bleeding at the lungs) and coughs.

EMPLOYMENT.—It may be given in the form of infusion, either warm or cold. It enters into the vegetable syrup.

No. 53. BUTTERNUT. (*Juglans Cinerea.*) *The Bark and unripe Fruit.*

Common Names.—WHITE WALNUT AND BUTTERNUT.

LOCALITY.—These trees are very common in the United States. Found growing in valleys and on mountains.

PROPERTIES.—During the American Revolution, when medicines were scarce, this article was brought into use by the physicians of the hospitals, and was esteemed by them an excellent substitute for the



50. Hops. (Humulus Lupulus.)



51. Witch Hazel. (Hamamelis Virginica.)



48. Black Hellebore. (Helleborus Niger.)



49. Golden Seal. (Hydrastis Canadensis.)

ordinary cathartics. The extract made from the inner bark of these trees is alone employed. When given alone, in doses of from fifteen to thirty grains, it operates as an active cathartic, without "occasioning heat and irritation." It is thought to be very applicable in indigestion, and as an aperient in habitual costiveness, as it does not leave the bowels in a costive state, as many other cathartics do.

Employment.—It is given in the form of an extract, made into pills; dose, four or five, size of a pea.

No. 54. Juniper. *(Juniperus Communis.)* *The Fruit.*

Common Name.—Common Juniper.

History.—The berries of this shrub, the only part used, are ripe in August. It flowers in June.

Locality.—This shrub is indigenous to Europe, but naturalized in this country, and grows in abundance in the State of New York, on the banks of rivers, &c.

Properties.—The berries and essential oil are possessed of a powerful diuretic quality, exercising a very decided stimulating action on the general economy, but more especially upon the kidneys, increasing the secretion of those organs. They are principally exhibited in dropsy. The oil is carminative, and may be given in flatulencies, gravel, &c.

Employment.—The berries may be given in the form of infusion, and the oil may likewise be given. From three to five drops are a dose.

No. 55. Elecampane. (*Inula Helenium.*) *The Root.*

Common Name.—Elecampane.

Locality.—This is a perennial plant, indigenous to Europe, but is very common in this country, growing in low meadows, by the roadside, and in stony pastures. It flowers in July or August.

Properties.—This plant is possessed of pretty energetic tonic properties. It is an excellent article, in combination with others, in colds and coughs, pulmonary irritation, and consumption. It enters into the *pulmonary balsam.*

No. 56. Cedar. *(Juniperus Virginiana.)* *The Leaves and Berries.*

Common Name.—Red Cedar.

Locality.—This tree is indigenous to America, growing in great abundance in the southern States, but found all over the United States.

Qualities.—The leaves of this tree have a strong, unpleasant smell, and acrid, hot, bitterish taste. Distilled with water, they give out an essential oil.

Properties.—The oil which is produced from the cedar by distillation, is very useful in *inflammatory rheumatism.*

No. 57. Skunk Cabbage. (*Ictodes Fœtida*) *The Balls and Roots.*

Common Name.—Swamp Cabbage.

History.—Its flowers are among the first that appear in the spring, after the rigours of winter have passed, appearing from February to April, according to its latitude.

Locality.—This is a perennial native plant, growing in boggy woods and swamps, and other moist places, throughout the United States.

Properties.—The root of this plant is possessed of *anti-spasmodic* properties, similar to asafœtida and other fetid gums. It is very useful in spasmodic asthma.

Employment.—It constitutes one of the ingredients of our vegetable syrup, used for bleeding at the lungs, coughs, asthma, &c. Henry, in his Herbal, states, that this root is good for obstructed menses, for worms, asthma, and rheumatism. Gather the balls in September, cut and dry them, then pulverize and sift them; dose of the powder from half to a tea-spoonful night and morning in molasses, for three mornings in succession, before the full and change of the moon. On the fourth morning give a purge. For the asthma, and to promote the menses, make a syrup, and give as much as the stomach will bear.

No. 58. Bugle. (*Lycopus Virginicus.*) *The Plant.*

Common Names.—Sweet Bugle, Bugle-weed, Water Bugle, Bugle-wort, Water Hoarhound, &c.

History.—This plant blossoms in the summer, in July and August; seeds ripen in September.

Locality.—This plant grows near water, ditches, creeks, swamps, &c.

Properties.—"Sedative, subtonic, subastringent." It is very useful in coughs and bleeding of the lungs. It enters into the *vegetable syrup.*

Employment.—It may be given in infusion or decoction, cold.

No. 59. Poplar. (*Liriodendron Tulipifera.*) *Bark of Trunk and Roots.*

Common Names.—White Poplar, White Wood, Wild Poplar, &c

History.—This tree flowers about the middle of May.

Locality.—This is a tree indigenous to America, and is found growing throughout the United States, on mountains and in low forests.

Properties.—The bark of the tree and root is possessed of valuable tonic properties, and by some is considered equal to Peruvian bark. Dr. J. T. Young, in a letter to Gov. Clayton, of Delaware, says: "I have prescribed the poplar bark in a variety of cases of intermittent fever, and can declare, from experience, that it is equally efficacious with the Peruvian bark, if properly administered." The same gentleman says he has used it in hysteria with the greatest benefit. "There is not," says he, "in all the materia medica, a more certain, speedy, and effectual remedy in hysteria than the poplar bark, combined with a small quantity of laudanum." In dyspeptic states of the stomach and bowels this is a valuable remedy, owing to its tonic and stimulant powers.

Employment.—The dose of this bark is from half to two drachms, in powder; the infusion from half to one ounce, in a pint of boiling water. It enters into the *wine bitters.*

No. 60. Dandelion. (*Leontodon Taraxacum.*) *The Leaves and Roots*

Common Name.—Common Dandelion.

History.—This is a well-known plant, common to Europe Asia and America. It blossoms from April to October.



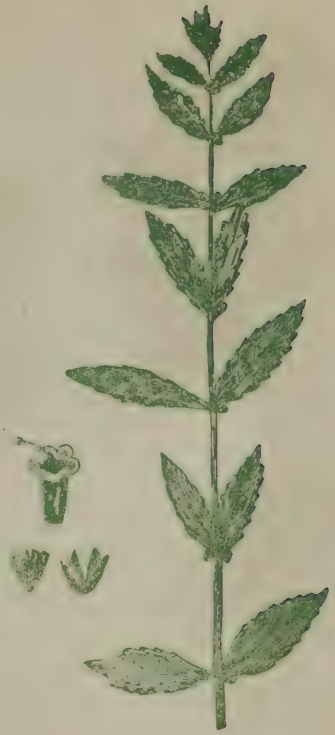




52. Liverwort. (Hepatic Triloba.) 54. Common Juniper. (Juniperus Communis.) 55. Elecampane. (Inula Helenium



57. Skunk Cabbage. (Ictodes Fœtida.)



58. Water Horehound. (Lycopus Virginicus.)

Locality.—It is found in pastures, fields, and along road sides.

Properties.—"Deobstruent, diuretic, herpetic, subtonic, aperient." It is much used in liver complaints, dropsy, jaundice, hypochondria, and obstructions.

Employment.—I consider this plant one of the most valuable in the *materia medica*. It exerts a sure and efficacious effect upon the liver, removing obstructions. It enters into the *hepatic pills*. It is also excellent for the gravel and kidney complaints, and may be taken in the form of tea freely. The inspissated juice of the plant is the best form to give it.

No. 61. Lobelia. (*Lobelia Inflata.*) *The Seeds, Leaves, and Capsules.*

Common Names.—Common Lobelia, Indian Tobacco Emetic-weed, Wild Tobacco, Puke-weed Asthma-weed, &c.

Description.—A biennial plant, one or two feet high, pale blue flower, capsule contains numerous small seeds. The taste of the leaves is nauseous, and excites vomiting, something like common tobacco. It was discovered by Lobel, a noted botanist, and named after him. Used by the Indians of this country as an emetic. Samuel Thomson and his followers employ it for almost every disease as a puke; but this indiscriminate use of it is wrong. Like other plants, it is good, judiciously used.

History.—This plant blossoms from June to November. The flowers are very small, but singular; when broken, a milky, acrid juice is emitted. It is biennial, throwing out the first year only a few radical roundish leaves.

Locality.—This plant is indigenous to America, and found growing all over the United States, in fields, woods, &c.

Properties.—In tea-spoonful doses, repeated every twenty minutes, it pukes freely, but is very prostrating to the system, and, when given alone, sometimes causes alarming appearances, although the patient soon recovers from its effects. It is best combined with those articles which modify its action, in which manner I administer it. I combine it with *ipecac* and *blood-root*, equal parts, which make an excellent emetic in all cases where its use is required. Very useful in asthma, &c. It enters into the *emetic powders*.

No. 62. Sassafras. (*Lauras Sassafras.*) *Roots, Twigs, and Bark.*

Common Name.—Common Sassafras.

Locality.—This tree is a native of North America, and found growing plentifully throughout the United States, in forests and along the borders of swamps.

Properties.—This article is *stimulating* and *alterative*, and very good in rheumatic complaints and eruptive diseases. The bark of the young branches and the pith contain a considerable quantity of mucilage. If the pith be infused in rose water, a considerable quantity of mucilage is extracted, which renders this infusion very useful in *acute inflammation of the eyes*, in *catarrhs, and dysentery*. Dr. Eberle says, "I have known the long continued use of an infusion of this article effectually cure a case of inveterate rheumatism." It enters into the *alterative syrup*. The pith of sassafras put into rose water, makes the *laurus eye-water*, which is very valuable for opthalmia or inflammation of the eyes.

No. 63. Lavender. (*Lavendula Spica.*) *The Leaves and Stems.*

Common Name.—Broad-leaved Lavender.

Locality.—A perennial plant, native of the south of France, and cultivated in our gardens; flowering from May to September.

Properties.—Although lavender possesses very energetic stimulant properties, it is, nevertheless, very little used now, except as a perfume. It is, however, administered with advantage in flatulence, fainting, and nervous affections. It is *carminative*, *pectoral*, *nervine*, and *anti-spasmodic*.

Employment.—It constitutes the principal ingredient in the *compound spirits of lavender*. The oil is generally used for this purpose, but it makes the composition too heating. We use the flowers.

No. 64. Bayberry. (*Myrica Cerifera.*) *The Bark of the Root.*

Common Name.—Wax Myrtle.

Locality.—A native shrub of the United States, found particularly in the states of Connecticut, New Jersey, Pennsylvania, Delaware, Virginia, the Carolinas, and Louisiana.

Properties.—This article is *narcotic*, *astringent*, *emetic*, *&c.* The bark of the root is found to be a sovereign remedy in *scrofula* in a state of ulcer, applied in the form of a poultice, by bruising the bark and simmering it in rain water; then applying the poultice to the ulcers, and injecting a strong decoction into the sinuses. It is likewise very good in *jaundice*, especially that called *black jaundice*.

I consider this shrub to be one of the most valuable productions of this or any other country. We use it principally in the form of poultice, as a remedy in the scrofula or king's evil; and also, combined with blood-root, as a snuff, for the polypus.

Employment.—It may be given in powder, infusion, or decoction. The poultice for scrofulous ulcers is made by simmering the bark of the root, bruised or pulverized, in rain or spring water, until soft; and then stirring in Indian meal, or, which is better, slippery elm bark, until a poultice of a proper consistence is formed. Bayberry tallow or wax is the basis of one of our plasters for scrofulous ulcers.

No. 65. Colombo. (*Menispermum Palmatum.*) *The Root.*

Common Name—Colombo.

Locality.—This is a native growth of Africa, Madagascar, and the East Indies.

Properties.—It acts as a *tonic*, giving strength to the stomach and intestinal canal, without stimulating. In dyspeptic complaints it exerts its greatest benefits, and is one of the best tonics that we can employ in those cases. Dr. Eberle administered this article, in union with ipecacuanha, with "marked advantage" in dyspepsia. He gives ten or twelve grains of colombo with two of ipecacuanha. Colombo enters into the *restorative cordial*.

No. 66. Hoarhound. (*Marrubium Vulgare.*) *The Leaves and Stems.*

Common Name.—Common Hoarhound.

Description.—This plant is perennial, arising about a foot in height,



59. White Wood. (Liriodendron Tulipifera.)



60. Dandelion. (Leontodon Taraxacum.)



61. Lobelia. (Lobelia Inflata.)



62. Sassafras. (Laurus Sassafras.)

leaves deeply serrated, veined, wrinkled, and hoary, in pairs, standing upon long, thick and broad footstalks; flowers white; calyx cut into ten segments.

Locality.—This is a native plant of Europe, but flourishes well with us, and is found growing along fences and road-sides.

Properties.—It is *pectoral* and *tonic*, and is a very excellent remedy in colds, coughs, and all pulmonary affections. It is very good in consumption and pneumonia. It enters into the *pulmonary balsam*, which constitutes an exceedingly valuable preparation in all pulmonary diseases.

Employment.—It is most generally given in the form of syrup and infusion or tea. It is used also in the form of syrup, for colds and coughs.

No. 67. Peppermint. (*Mentha Piperita.*) *The Leaves and Stems.*

Common Name.—Peppermint.

Locality.—This plant is indigenous to Europe, but is cultivated in our gardens for medical use.

Properties.—This plant possesses decided *stimulant, sudorific, anti-spasmodic, pungent*, and *anti-emetic* properties. It may be administered with advantage in nervous affections of the stomach; such as *flatulence, colics, dyspepsia, spasmodic vomiting*, &c. It is also very useful as an adjunct to other medicines, particularly cathartics, to facilitate their action and to conceal their odour or unpleasant taste. It enters into the *neutralizing* and *anti-bilious physic*. It is excellent to allay vomiting, and very useful in bowel complaints, cholera morbus, &c.

Employment.—It may be given in powder, infusion, or the essential oil. Essence, one tea-spoonful may be given at a dose. Infusion, a handful to a quart of boiling water; and should be taken freely.

No. 68. Catnip. (*Nepeta Cataria.*) *The Leaves and Flowers.*

Common Names.—Common Catnip, Catnip, Catmint, &c.

Locality.—This is a perennial plant, indigenous to this country, and is found growing throughout the United States, along the sides of roads and old buildings.

Properties.—It is *diaphoretic, carminative, diluent, refrigerant.* It is useful in all kinds of fevers, producing perspiration without increasing the heat of the body. Although this plant is very simple, and is by some despised, yet it is a very valuable article. In colds, a tea made of it is much used in domestic practice, and not without effect, as it most generally induces a profuse perspiration, which throws off the cold, and restores the patient to his ordinary health. Very efficacious in all kinds of fevers.

Employment.—It is given in infusion, by infusing a small quantity in a quart of boiling water. Externally, as a poultice in painful swellings. Excellent also in fomentations.

No. 69. Spearmint. (*Mentha Viridis.*) *The Leaves, Branches, &c*

Common Name.—Spearmint.

Description.—This plant rises two or three feet in height; stem quadrangular, straight, with small branches, leaves opposite, on short peduncles, oval, serrated; flowers on a short terminal spike.

Locality.—It is a perennial plant, found growing along brooks and rivulets.

Properties.—*Febrifuge, diuretic, anti-spasmodic* and *anti-emetic*. This plant is excellent to allay nausea and sickness at the stomach. It is also an excellent remedy in gravel, suppression of urine, &c. The oil is valuable in pains and rheumatic affections.

Employment.—Infusion, made by bruising a handful in a quart of boiling water. It constitutes the principal article in the spirits of mint, which is made by bruising the green plant, and adding sufficient fourth-proof Holland gin to make a saturated tincture, which makes a preparation remarkably efficacious in suppression of urine, gravelly affections, &c. I discovered this many years ago, more by accident than design. The dose of this preparation is a wine glassful, drank as often as the stomach will bear. Cotton, wet with the above liquid or tincture, and applied to the *piles*, affords immediate relief. It makes the *spirits of mint*.

No. 70. Olive. (*Olea Europea.*) *The Oil.*

Common Name.—Olive Tree.

Description.—This is an evergreen, with oblong, narrow, willow like leaves, and monopetalous, whitish flowers, cut into four sections or segments, followed by a cluster of oval black fruit, containing, under a fleshy pulp, a hard, rough stone.

Locality.—This tree is a native of the south of Europe and north of Africa. It is cultivated in France, Spain, and Italy, for the sake of its fruit and oil.

Employment.—*Emollient, purgative, antiseptic, vulnerary, refrigerant*, &c. This oil, taken internally, operates as a gentle laxative, and is useful in inflammation of the bowels and stomach; also in dysentery. It is often used to mitigate the action of acrid substances taken in the stomach. It is used externally, in clysters; but its principal employment is in the composition of ointments and plasters. It has been thought to be a specific for the bite of poisonous serpents.

In the Philosophical Transactions (vol. xxxiv., p. 310) are related the experiments of one William Oliver, who suffered his arm to be bitten by a viper, and waited until the most violent symptoms ensued, which were soon removed by applying the warm oil of olives to the affected parts.

The dose of the oil, as a cathartic, is one ounce. Externally, it is rubbed on the parts, or formed into plasters or ointments.

No. 71. Alder. (*Prinos Verticillatus.*) *The Bark and Leaves.*

Common Name.—Black Alder.

Properties.—*Alterative, anti herpetic*, &c. A tea, or decoction of the bark, sweetened, has been highly extolled for the removal of worms in the stomach of children. The bark or the root of black alder is found excellent to purify the blood; to be combined with other articles, and made into beer or diet drink.

Matthew Noyes, a clergyman in Northford, Ct., it is said, was cured of an affection of the lungs, which had rendered him unable to preach. He took a wine glassful of the above preparation three or four times a day.



64. Bayberry. (Myrica Cerifera.)



66. Horehound. (Marrubium Vulgare.)







67. Peppermint. (Mentha Piperita) 68. Catnip. (Nepeta Cataria) 69. Spearmint. (Mentha Viridis)

No. 72. Anise seed. (*Pimpinella Anisum.*) *The Seed.*

Common Name.—Garden Anise Seed.

Locality.—An annual plant, native of the Levant; cultivated both in Europe and America.

Properties.—The properties of this plant are somewhat similar to those of fennel. The seeds are *carminative* and *pectoral.* They are useful in dyspepsia, and flatulent affections incident to children. The oil of anise seed enters into the *cough drops.*

Employment.—The seeds may be given, but the oil dropped on sugar is preferable. For flatulence an infusion of the seeds may be given.

No. 73. Canada Balsam. (*Pinus Balsamea.*) *The Resinous Juice.*

Common Name.—Canada Fir Balsam.

Locality.—This tree is found growing plentifully in Canada and in some parts of the United States.

Properties.—When given internally, this balsam is stimulating, gently laxative; applied internally, it is emollient and cooling. It is efficacious when applied to sore nipples, and is esteemed very much by some in cuts, wounds, &c. Dr. Budd prescribes this in leucorrhœa or fluor-albus. It enters into the *cough drops.* Equal or superior to copaiba.

No. 74. Dragon's Claw. (*Pterospora Andromeda.*) *The Root.*

Common Names.—Dragon's Claw, Fever-root, &c.

Description.—This plant rises six or seven inches in height; the leaves grow in a cluster from the top of the root; blossoms yellow; small black root, about the size of cloves, very tender, resembling the claws of a hen.

Locality.—It is found in the Genesee country, and in the mountains around Albany.

Properties.—This plant is useful in different kinds of fevers, particularly typhus. It keeps up a moisture of the skin, and produces no excitement.

Employment.—To a tea-spoonful of the root add about half a pint of boiling water. It may be drank freely.

No. 75. White and Yellow or Pitch Pine. (*Pinus Palustris and Pinus Rigida.*)

Common Names.—White Pine; *also,* Pitch and Yellow or Southern Pine.

Locality.—Found principally in the northern and southern states.

Properties.—Both the white and the yellow pitch or southern pine are *stimulant, laxative, diuretic, pectoral, vermifuge, discutient, anti-herpetic, detergent, balsamic, vulnerary, &c.* This, together with the white pine, is one of the most valuable productions to be found. The bark and gum are very useful in rheumatism and consumption. They likewise act as emmenagogue, increasing the flow of the menses. They are also beneficial in diseases of the kidneys. Externally, they are much used in the form of plasters, for ulcers, &c. In short, they appear to act upon all the secretions and excretions of the body.

Employment.—Internally, infusion of the pitch, white, and other pines,

drank, or pills made of the gum; externally, plasters, spread on cloth or leather, for lumbago, rheumatism, and local pains. The gum itself, spread on leather, makes an excellent strengthening plaster. Digested in wine, it is a valuable remedy in rheumatic affections and obstructed menses. The oil of tar is excellent in pain in the breast. Ten drops, three or four times a day, are a dose; to be given in milk. Tar enters into the irritating plaster.

No. 76. Wild Cherry. (*Prunus Virginiana.*) *The Bark.*

Common Name.—Wild Cherry Tree.

Locality.—This tree is indigenous to the United States, in many parts of which it is found in abundance. Found growing in our forests.

Properties.—It enters into the *wine bitters*, given in intermittent fever. It is excellent in many forms of dysentery, and, combined with other articles, makes a good beer for the blood.

Employment.—In the form of infusion; as a tonic, should be given cold, and is excellent in involuntary discharges of urine.

No. 77. Hemlock. (*Pinus Canadensis.*) *The Bark, Leaves, and Oil.*

Common Name.—Common Hemlock.

Description.—This is a large tree, growing throughout the northern states, and is so well known as to need no description. The bark is used for tanning leather.

Properties.—A decoction of the bark makes an excellent astringent wash for falling of the bowel and womb. A tea or infusion made of the leaves is excellent to produce perspiration in rheumatism. Externally, the oil is very valuable in painful rheumatic affections; internally, is very good in pain of the breast; also for quinsy, bathed on the throat. The gum makes an excellent plaster for lumbago, sciatica, and rheumatism. A valuable plaster is made of the gum, by melting, straining, and adding to it one-fourth gum turpentine, melted; it is beneficial wherever a plaster is required.

No. 78. Mandrake. (*Podophyllum Peltatum.*) *The Root.*

Common Names—May Apple, Indian Apple, Mandrake, &c.

Description.—The mandrake grows about two feet high, with two or three large leaves, broad at the base, terminating in a sharp point. The stem is smooth, round, and divided at the top into two leaf stalks, each of which supports a leaf at its extremity. It bears one white flower, which appears in May, and is succeeded by fruit of a yellow color, like a lime, of an acid, delicious taste. It has a jointed, creeping root, about the size of a pipe stem when dry. Brown externally, white when broken, and, when pulverized, makes a beautiful powder.

Locality.—Grows in woods and meadows, and in patches through out the United States.

Properties.—*Purgative, deobstruent, anti-bilious, anthelmintic, hydrogogue, anti-dyspeptic. A complete substitute* for *mercury.* The properties of this article are that of a sure and active cathartic, equal, if not superior, in some diseases, to that of jalap.

We have found this root very valuable in many inveterate chronic dis-



70. Olive Tree. (Olea Europea.)



71. Black Alder. (Prinos Verticil'atus.)



75. Pine. (Pinus.)



78. Mandrake. (Podophyllum Peltatum.)

such as venereal, scrofulous, bilious, dyspeptic, or chronic affections of the liver, dropsy, &c. The following is an excellent form to administer it:

Compound Powder of Mandrake.—Pulverized mandrake root, pulverized spearmint, cream of tartar, equal parts: mix: dose, a tea-spoonful in molasses or tea.

The mandrake is often considerably nauseating, and sometimes vomits, and, upon the whole, is not so pleasant as some other purgatives; but it has a peculiar effect upon all the secretions and excretions, stimulating them to a healthy action, and often answers the purpose both of an emetic and cathartic. It is excellent in chronic affections of the liver, indigestion, &c. I have invariably given this preparation with success in a variety of complaints.

"The root of this plant," says Miles, "is peculiarly calculated for a *cathartic*, extending its influence through every part of the system; touching every gland, when given in small doses, and repeated every two or three hours. It is particularly serviceable in all dropsical cases and intermittents, or any other disease where a general action is wanting. It is often successfully employed as a *vermifuge*, in tea-spoonful doses, and repeated." "I will remark," says he, "in regard to this medicine, also, that small doses excite a general action, and stimulate the glands to a discharge of their respective offices; while large doses evacuate and exhaust the system."

Employment.—Internally, the pulverized root may be given in the dose of a small tea-spoonful, or from twenty to thirty grains, combined with aromatics.

Mandrake Pills, &c.—Dr. Waterman, of Providence, R. I., states that he cured a person considered hopeless, after the common physicians had put him through a course of their medicine, by giving four pills made of *extract of mandrake* and *capsicum*, three grains each. It evacuated three quarts of clear water by the bowels. "I find it," says he, "to work admirably in stubborn cases of dropsy, obstructed menses, and diseases of the liver and kidneys. It seems to act upon all the secretions, and increase the strength of the system." In the above case, he says, this preparation, the extract and capsicum, equal parts, operated with astonishing effects.

Almost every botanical writer extols mandrake. Judge Murphy, of Brooklyn, who was formerly a strong Thomsonian, states that if he were to give up either of the two plants, it would be lobelia. He administers mandrake in half tea-spoonful doses every two hours. It prevents the sickness arising from a full portion for most complaints.

Dr. S. Annibil, it is said, calls mandrake "king of roots." I have used it in the form of powder, tincture, and extract.

Says Dr. Thomas Cooke, "My own experience goes to confirm the valuable properties of this article; I have been in the habit of using it in my practice extensively for the last ten years in the various forms of disease, and can say that I know of no single article in the whole materia medica that acts so generally on the secretions and excretions, removing obstructions, and exerting a healthy action throughout the system, without any bad effects whatever. I am confident that if the faculty would for once divest themselves of their blind prejudices in favour of the mineral, and consent, at least, to make a trial of this vegetable substitute, it would be a happy event for mankind. I consider it a complete substitute for mercury in all the diseases in which, in the common practice, it is supposed that mineral is indicated. I consider it far preferable, because, after having its operation and effect, it passes off and leaves the system free; whereas mercury fastens upon the bones and solids, and remains like a corroding and eating canker, rendering vast numbers feeble and debilitated for life. Their humanity

should be a sufficient inducement for this. The plea, that the vegetable kingdom contains no equivalent to mercury, is no longer tenable; then why should not physicians discard the use of it at once, when it is universally acknowledged, and felt, that in the aggregate it has proved a curse, a destroyer to the human race? The disuse of it, it is true, would lessen the employment of the medical profession; but the satisfaction they must feel at the proportionate decrease of suffering among their fellow-beings, would no doubt richly compensate them for the pecuniary sacrifice."

No. 79. Poppy. (*Paparer Somniferum.*) *Capsules, Flowers, and Gum.*

Common Name.—Garden Poppy.

Locality.—This plant is indigenous to Asia, and is cultivated now both in Europe and America.

Properties.—The action of opium appears to be directly or indirectly upon the nervous system. When administered in small doses, it diminishes sensibility, and causes a tranquility in the system, which is followed by sleep. It should be seldom used, except as an anodyne; but when combined with other ingredients, with a view to act upon the secretions, it may be given in very many diseases with signal benefit.

Employment.—Opium may be given in doses from one to three grains. Laudanum, from thirty to one hundred drops. A medium dose for an adult is forty or fifty drops. A syrup made of the capsules is excellent for children, as the water takes up less of the narcotic principle than spirits. About a tea spoonful of it is a dose for a child of two years old. The product of this plant enters into the *sudorific drops, diaphoretic powders, &c.* In cases where other means fail to allay pain, it is good practice to give opium in the form of pills or powder; but should be dispensed with in every case where it is possible.

No. 80. Plantain. (*Plantago Major.*) *Root and Leaves.*

Common Name.—Large Plantain.

Locality.—This plant is indigenous to this country, and is found growing plentifully in meadows, pastures, by road-sides, and in gardens.

Properties.—It is possessed of "refrigerant, vulnerary, antiseptic, detergent, and subastringent" properties. It is held in high repute, by some, in the cure of bites from poisonous serpents and insects.

It was recorded in a Virginia paper that a gentleman was bitten above the knee by a spider. A few minutes after he perceived a pain shooting upward from the spot, which soon reached his heart. A quantity of plantain was immediately gathered and bruised, and the juice squeezed out and swallowed, which stopped the progress of the poison, so that a cure of the bite was obtained immediately.

The leaves, simmered in spirits or fresh butter, make an excellent ointment for erysipelas, tetter, or salt rheum. It is also remarkably efficacious in poisons of all kinds.

A negro at the south obtained his freedom, by disclosing a nostrum for the bites of snakes, the basis of which was the plantain. It consisted in giving the expressed juice of plantain and hoarhound, equal parts: a table-spoonful, to be repeated as often as the stomach would bear; and the same to be applied to the wound.



79. Poppy. (Papaver Somniferum.)



80. Plantain. (Plantago Major.)



81. Poke. (Phytolacca Decandria.)



82. Seneca Snake-root. (Polygata Senega.)

A writer states that a toad, in fighting with a spider, as often as it was bitten, retired a few steps, ate of the plantain, and then renewed the attack. The person deprived him of the plant, and it soon died.

No. 81. Poke. (*Phytolacca Decandria.*) *Root, Leaves, and Berries.*

Common Name.—Poke, Skoke, Garget, Coakum.

Locality.—This is a plant indigenous to America, but is now naturalized in Europe. It is found growing in all parts of the United States, along the way-sides, in woods, fields, &c.

Properties.—The inspissated juice of the berries is of great service in rheumatism, and externally, in ulcers. We occasionally employ it in the cure of fistula; also as a discutient in hard, glandular tumours, and it frequently proves very efficacious.

A graduate of our school has used the ointment successfully in bronchocele. The juice has removed a bony tumour from an animal, by rubbing with it.

Employment.—We use it in the form of extract and the inspissated juice of the berries: also as an ointment and poultice for hard, indolent tumours. I apply it in the form of poultice, made by roasting or boiling the root, to hard, indolent tumours with excellent effect. I have found it more serviceable than any other application.

(No. 82. Seneca Snake-root. *Polygala Senega. The Root.*)

Common Names.—Seneca Snake-root, Rattlesnake-root.

Description.—It is a perennial plant, grows wild in Pennsylvania, New Jersey, and Virginia. Root about the thickness of the little finger, contorted, variously bent, with joints resembling the tail of a rattlesnake, whence its name.

Locality.—This is a perennial plant, indigenous to America. It is found growing in nearly all the States in the Union.

Properties.—*Stimulant, expectorant,* and *diuretic.* Henry states, in his Herbal, that he cured a case of twelve years' standing by a decoction of this plant: one ounce of the root to one quart of water, boiled to half a pint. Give a puke. Next day give a table-spoonful of the decoction every hour till all is taken, which operates both by stool and urine for the cure of dropsy.

For the hives and croup, first give a puke, then give a decoction every two hours, as much as can be drank. The same is good for all fevers. It enters into "Coxes' hive syrup."

Employment.—Dose of the pulverized root, from ten grains to half a drachm. Decoction: take one ounce of the root, bruised, and simmer it in a close vessel, with a pint of boiling water, until the quantity is reduced to one-third.

No. 83. White Oak. (*Quercus Alba.*) *The Bark.*

Common Name—White Oak.

Locality.—Found growing in the forests throughout the United States abundantly.

Properties.—Oak bark has been given in some instances as a substitute for bark, to which, however, it is greatly inferior. Its chief use is as an external astringent and antiseptic. A strong decoction is employed with

advantage, as a gargle, in sore throat, and as a lotion in gangrenous ulcers and offensive discharges of different kinds.

The powder of this bark has, it is said, by inhaling, cured consumption. It is used by us in falling down of the uterus, *prolapsus ani*, *leucorrhœa*, and all other diseases in which astringents are required. It enters into the "astringent decoction" The extract is used for hernia, rupture, and ulcers. It forms an excellent wash or injection.

Employment.—It is the basis of the astringent decoction. It enters into Ferris's cancer plaster, for cancers and inveterate ulcers; also the *tonic tincture*.

No. 84. Blackberry. (*Rubus Villosus.*) *The Root and Berries.*

Common Name.—Common Blackberry.

Locality.—This plant is found growing abundantly throughout the United States, and is indigenous to this country. Found growing along swamps and fences.

Properties.—The bark of the root or the berries, formed into a syrup, is exceedingly valuable in chronic diarrhœa, and dysentery, cholera infantum, or summer complaint It often proves a sovereign remedy when all other remedies fail. It is a medicine much used by the Indians in dysentery; and it is said that, in the Oneida tribe, five hundred were attacked with this disease in one season, and, by the use of the blackberry root, all recovered, while their neighbours, the whites, fell before the disease; no doubt in consequence of taking mercury, or some of the common agents made use of.

Employment.—The root may be given in powder, infusion, decoction, or syrup: decoction, one ounce of the bruised root to a pint of water. I prescribe it in the form of syrup. The fruit makes an excellent syrup. Gather it when ripe, add a little cinnamon, bruise, simmer, and strain; add loaf sugar, and boil a few minutes; when cool, add a little French brandy. Dose, according to age, four or five times a day, for bowel complaints.

No. 85. Castor Bean. (*Ricinus Communis.*) *The Oil.*

Common Name.—Castor Bean.

Locality.—This plant is a native of the East Indies and Africa. In those countries it is said to be perennial: but in our country and in Europe, where it flourishes well, it is an annual plant.

Properties.—The castor oil is a very mild cathartic, unloading the bowels of their contents, without occasioning any intestinal irritation, which renders it very useful in bowel complaints, by its oleaginous particles lubricating the inflamed mucous surface of the intestines. It is also serviceable in colics and in strangulated hernia. It is excellent in inflammation of the stomach and bowels, and in all diseases where an unirritating, emollient purgative is required.

Employment.—The dose of this oil is from half an ounce to one ounce, or a table-spoonful poured on peppermint water or in boiled milk, which, in a measure, disguises it.

No 86. Yellow Dock. (*Rumex Crispus.*) *The Root.*

Common Names—Yellow Dock, Garden Patience.

Locality.—Plant perennial, indigenous to Europe, and naturalized in







83. Oak. (Quercus Alba.) 85. Castor Bean. (Ricinus Communis.) 86. Yellow Dock. (Rumex Crispus.)



87. Rhubarb. (Rheum Palmatum.) 88. Sumach. (Rhus Typhinum. 89 Bitter-sweet. (Solanum Dulcamara.)

America. Grows abundantly in damp places, gardens, &c.; flowering in the summer.

Properties.—This plant is slightly *tonic, narcotic*, and *detergent*. The decoction of this root, drank, is considered very useful in the cure of cancers. A poultice of these roots, applied to indolent swellings, is very useful to discuss them. An ointment is also good to discuss indolent, glandular tumours. Thatcher says it will effectually cure the itch. A syrup made of the roots is excellent to eradicate scrofulous and other taints of the system

Employment.—A decoction of the roots made and drank; also a syrup.

No. 87. Rhubarb. (*Rheum Palmatum.*) *The Root.*

Common Name.—Rhubarb.

Locality.—A perennial plant, native of China and Tartary; cultivated in various parts of Europe, especially in France, and it is likewise produced in America.

Properties.—The root of this plant is a valuable and singular cathartic, differing from all others of the materia medica. It operates, first, by evacuating the intestinal canal, and then gently astringing or restoring the tone of it. Upon these singular properties combined (purgative and astringent) depend its utility in dysentery and diarrhœa. Its medicinal properties are heightened by the addition of an alkali. And in other diseases depending upon a lax state of the muscular fibres of the intestines, together with the existence of an acrid state of the fluids, this preparation is exceedingly useful. Its operation in those disordered states of the bowels is by neutralizing the acid, by evacuating the contents of the bowels, and then by gently astringing the relaxed fibres. I have often been astonished that this valuable plant should be neglected by physicians, particularly in bowel complaints, and mercury substituted, when this mineral invariably injures, while the rhubarb proves a sovereign remedy.

Employment.—The dose of the pulverized root is about a tea-spoonful, as a cathartic; or it may be given in the form of syrup or cordial, which renders it a very pleasant medicine. It forms the base of our *neutralizing cordial* or *mixture*.

No. 88. Sumach. (*Rhus Glabrum.*) *Bark of the Roots and the Berries.*

Common Name.—Common Sumach.

Description.—There are two kinds of the common upland sumach, one known as the narrow-leaved sumach, the other as the Pennsylvania sumach. The latter is smooth, and rises to the height of ten or fifteen feet; the leaves are feathered, sawed, lanced, naked on both sides, and change to a beautiful red in autumn; the seeds are in large bunches, arranged like the flowers, are red, and covered with a white powder of an agreeable acid taste.

Locality.—It grows throughout the United States, in barren fields, by the sides of fences, generally in gravelly soils.

Properties.—The two species above mentioned are astringent. An infusion of the berries, sweetened with honey, is sometimes used as a gargle in sore throats, and for cleansing the mouth in putrid fevers. The bark of the root is considered a very great antiseptic; in form of poultices for old ulcers, it is hardly equalled by any.

Employment.—Sumach bark is used in the form of decoction, for pro



93. Dwarf Elder. (Sambucus Ebulus.)



94. Mustard. (Sinapis Alba.)

with expectoration of mucus, streaked with blood. It should be given after the action of a gentle emetic and mild laxative.

"Dose of the above infusion, a tea-spoonful every two hours throughout the day."

Employment.—Dose of the powdered root, as an emetic, from ten to fifteen grains, &c. Given also in the form of syrup, infusion, tincture, and extract. It enters into the *pulmonic balsam.*

Dr. A. Sherman informs me that the saturated tincture of blood-root is an excellent medicine for suppression of the menses; dose, ten drops three or four times a day, in tea or water, increasing the dose daily. It is also very valuable for jaundice and liver complaint, taken in the same manner.

No. 91. Pink. (*Spigelia Marilandica.*) *The Leaves, Stems, and Roots.*

Common Name.—Carolina Pink.

Locality.—This is a perennial herbaceous plant, indigenous to this country. Found growing in the southern states, from Maryland to Florida.

Properties.—This article is well known to possess *vermifuge* properties, which act particularly upon the kind of worm called lumbrici, by destroying them. In this country this medicine has superseded the use of almost all other worm medicines. Whenever this article is given as a vermifuge, some brisk cathartic should be added, as senna, &c.; in doing so, we increase the powers of the remedy, and prevent any unpleasant nervous symptoms.

Employment.—The following form is remarkably efficacious. Take equal parts of pink-root and leaves, senna and manna; make a strong tea or infusion; sweeten. To a child four or five years old give a gill three or four times a day until it acts upon the bowels.

No. 92. Comfrey. (*Symphytum Officinale,*) *The Root.*

Common Name.—Comfrey.

Description.—Stem herbaceous; leaves oval, lanceolate, acute; flowers white, or of a rose colour, in spikes at the extremity of the branches; corolla tubular, furnished with five lanceolate and acute processes.

Properties.—The roots of this plant are *demulcent, pectoral* and *astringent;* good demulcent in pulmonary irritations, arising from colds, coughs, &c. In consumption it is a valuable remedy.

Employment.—We make extensive use of it, in combination with other ingredients, and principally in the form of syrup. It enters into the *pulmonary balsam* and *restorative cordial,* and is very useful in leucorrhœa, (whites,) debility, &c.

No. 93. Dwarf Elder. (*Sambucus Ebulus.*) *The Flowers, Berries, and inner Bark.*

Common Name.—Dwarf Elder.

Locality.—This is a perennial plant, growing abundantly throughout the United States. Found along fences and road-sides. Flowers in July and August, and its berries are ripened in September.

Properties.—A decoction of this bark has been found beneficial in

dropsy. The extract of the inner bark of elder is very good in piles and dropsy. The juice of the inner bark, taken in the dose of a gill, vomits and purges powerfully.

No. 94. Mustard. (*Sinapis Alba.*) *The Seeds.*

Common Name.—White Mustard.

Properties.—Mustard seeds are *stimulant* and *rubefacient*. Bruised and mixed with Indian meal and vinegar, to form a paste or plaster, and spread on cloth, are excellent to relieve inflammation, both superficial and deep seated; and I have found this much preferable to the cantharides or Spanish flies The mustard cataplasm or poultice is also used to arouse the system in apoplectic and comatose affections, and in the last stages of low typhus fever. As a preventive to the return of convulsions in children and adults, this cataplasm should never be omitted. It is a remedy which may be used to attract and fix gout on the extremeties, and likewise in bringing out eruptive diseases that have left the surface: in those cases it should be applied to the extremities In the treatment of cholera, both spasmodic and common, large mustard poultices, applied to the abdomen, very much assist in overcoming those diseases. In dyspepsia, and in obstinate costiveness, they are useful, by stimulating the intestines. Indeed, mustard is an excellent auxiliary in producing revulsion, or in equalizing the circulation.

In case of accidents by poisons, a tea-spoonful of mustard flour, promptly administered, is a very valuable remedy, expelling it from the stomach before a practitioner can be called.

Employment.—Dose of the seeds in dyspepsia and costiveness, a tea-spoonful three or four times a day; cataplasm as above. It is an excellent condiment with food in dyspeptic cases. The black mustard is equally as beneficial as the white.

No. 95 Garden Nightshade. (*Solanum Nigrum.*) *The whole Plant.*

Common Name.—Garden Nightshade.

Locality.—An annual plant, native of Europe, and naturalized in this country; found growing along old walls, fences, and in gardens.

Properties.—*Narcotic* and *discutient.* We use it only in the discutient ointment.

No. 96. Sarsaparilla. (*Smilax Sarsaparilla.*) *The Root.*

Common Name.—Sarsaparilla.

Locality.—This plant is indigenous to South America, growing spontaneously in Peru, Mexico, and all over South America, and in the Spanish West Indies.

Properties.—We make much use of this article in our practice, as an *alterative*, &c. It enters into the *alterative syrup*, which is very benficial in many complaints. The American sarsaparilla is equally as efficacious, if not superior.

Employment.—Decoction, from half to four ounces to a quart of water.



95. Garden Nightshade. Solanum Nigrum.)



96. Sarsaparilla. (Smilax Sarsaparilla.)



98. Balsam of Tolu. (Toluifera Balsamum.) 99. Tanzy. (Tanacetum Vulgare.) 100. Euphorbia.

No. 97. Sage. (*Salvia Officinalis.*)

Common Name.—Garden Sage.

Properties.—One author has such a high opinion of this plant, that he thus observes: "Why dies the man whose garden sage affords?" It is a *sudorific*, producing perspiration; and is a popular remedy for colds, coughs, fevers, &c. We use it principally as a gargle, in apthæ and quinsy.

No. 98. Balsam of Tolu. (*Toluifera Balsamum.*) *The Balsam.*

Common Name.—Balsam of Tolu.

Description.—This tree grows to a great height: the leaves are oval or ovate, and stand upon short footstalks; the fruit is a round berry.

Locality.—This tree grows in Spanish America. The balsam flows from incisions made in the bark during the hot seasons.

Properties.—This is the mildest of all balsams. It is useful in coughs, as an *expectorant;* and in *pyrosis* it is likewise beneficial. It enters into the composition of the *cough drops* of our pharmacopœia.

No. 99. Tansy. (*Tanacetum Vulgare.*) *The Leaves.*

Common Name.—Tansy.

Locality.—Native of Europe, growing in moist pastures and on borders of corn-fields; flowers in July and August.

Properties.—When fresh, *sudorific, emmenagogue, vermifuge, carminative, deobstruent, tonic, and stomachic.* Very useful as a tea in fevers, agues, cachexy, hysterics, dropsy, and to regulate labour-pains.

Employment.—Given in the form of tea.

No. 100. Euphorbia Ipecacuanha. (*Euphorbia Ipecacuanhæ.*)

Common Names.—American Ipecacuanha, American Ipecac, Purge, &c.

Locality.—This plant is a native of America, growing in shady woods, bogs, and sandy soils, in the middle and southern states.

Properties.—*Emetic, Cathartic,* and *Tonic.* Euphorbia possesses very powerful properties. It is an excellent hydragogue, evacuating the water when all other agents prove abortive or useless. A physician lately consulted me in a case of obstinate dropsy, which had resisted every means made use of to remove it. I advised him to give fifteen grains of the *euphorbia ipecacuhana,* which he did two or three times throughout the week; and the effect of it was a complete evacuation of all the water, followed by a permanent cure. It also has a tendency to promote the menstrual evacuation. A person informed me that it is an infallible cure for the bilious colic. It first produces nausea or vomiting, then purges freely. Dr. Bone, of New Jersey, a celebrated botanic physician, prescribes this medicine with great success in a variety of diseases.

Employment.—The powdered root may be given in doses of from twelve to fifteen grains, in molasses or tea; or from a half to a tea-spoonful.

No. 101. Slippery Elm. (*Ulmus Fulva.*) *The Bark.*

Common Name.—Slippery Elm.

Description.—Seldom grows above thirty feet high, trunk slender, dividing in numerous branches, furnished with a rough and light-coloured bark; leaves oval-oblong accuminate, serrate, pubescent on both sides, almost equal at the base; buds tomentose, of a tawny colour; flowers red, sessile, succeeded by membranous seed-vessels of a compressed and oval shape, containing one oval seed.

Locality.—A native tree of North America.

Properties.—*Demulcent*, *diuretic*, *pectoral*, *deobstruent*, *emollient*, and *refrigerant*. Useful in all urinary and bowel complaints, strangury, sore throat, catarrh, pneumonia, pleurisy, or inflammation of the lungs, stomach, and bowels, scurvy, scorbutic affections, herpes, inveterate eruptions, &c. As an external application, in the form of poultice, it is an admirable remedy, far exceeding any other known production in the world, for ulcers, tumours, swellings, gun-shot wounds, chilblains, burns, cutaneous diseases, erysipelas, felons, old, obstinate ulcers, and scabs; for sore mouth, used as a wash.

It quickly and powerfully allays inflammation, promotes resolution, also suppuration, and heals speedily. The tea is much used by the Indian women to procure easy labour, and is drank for two or three months previous to their being confined in child-bed. We make extensive use of the flour of the bark, in the form of poultice, for every variety of inflammation, wounds, ulcers, &c.

In point of utility, it is of far more value than its weight in gold; and, therefore, whoever has a tree on his farm should never permit it to be cut.

No. 102. Devil's Bit. (*Liatris Spicata.*)

Description.—Root tuberous, acrid, and bitterish, pungent, spicy, smelling like turpentine or juniper, holding a peculiar balsamic resin, but no oil: properties partly soluble in a watery decoction, wholly in alcohol. A powerful diuretic, acting mildly; may be used freely; also discutient, tonic, diaphoretic, and deobstruent. Useful in dropsy, sore throat, scrofula, gravel, pains in the breast, after-pains in women, and bites of snakes.

Employment.—It is used both externally and internally. It may be administered in the form of powder, tea, or syrup.

No. 103. Blue Flag. (*Iris Versicolor.*) *The Root.*

Common Name.—Blue Flag.

Locality.—Found throughout the United States, on the borders of swamps and in wet meadows; flowering in June.

Qualities.—The root has a nauseous taste, and when held in the mouth, imparts a powerful sense of heat and acrimony to the fauces. "The most active constituent," says Bigelow, "appears to be a resin, which precipitates in the form of a white powder, when water is added to the alcoholic solution."

Properties.—Dr. Woodruff informs me that this root is very valuable in several diseases. Given in doses of six or eight grains, night and morning, it proves gently laxative, and eradicates the most inveterate taint of the system. It is excellent in venereal and hepatic affections, fluor albus, &c. It forms the basis of Smith's anti-mercurial syrup, which is given and recommended for syphilitic and many other complaints. It is highly







101. Slippery Elm. (Ulmus Fulva.) 103. Blue Flag. (Iris Versicolor.) 102. Devil's Bit. (Liatris.)



104. Prickly Ash. (Xanthoxylum Fraxineum.) 106. Common Elder. (Sambucus Nigra.) 105. Pennyroyal. (Hedeoma Pulegioides.)

recommended for dropsy, combined with the root of male fern; make a tea and drink freely.

No. 104. Prickly-Ash. (*Xanthoxylum Fraxineum.*) *Bark and Berries.*

Common Names.—Prickly-ash, Toothache bark, Toothache tree.

Locality.—This is a tall shrub, indigenous to the southern states; and found plentifully in the middle states, in meadows and low moist ground.

Properties.—This bark possesses very energetic, stimulant, and diaphoretic properties, analagous to those of mezereon bark. It is a popular medicine, often exhibited in practice as a remedy in chronic rheumatism. It is said that, by an internal and protracted use, it has, in several instances, produced salivation. We also make use of the bark or berries in chronic rheumatism.

No. 105. Pennyroyal. (*Hedeoma Pulegioides.*) *The Plant.*

Common Names.—American Pennyroyal, Thick-weed, Stinking Balm, Squaw Mint.

Locality.—Found all over the United States and in Canada, in dry woods, plains, &c.

Properties.—*Carminative, stimulant, diaphoretic, emmenagogue, &c.* It is a popular remedy in the country for suppressed menses; an infusion or tea, given freely, assists nature to restore this evacuation, particularly where it has arisen from a sudden check of perspiration.

Employment.—A strong tea made of the plant should be taken warm, freely, and frequently, for gravel, suppression of urine, &c.

No. 106. Elder. (*Sambucus Nigra.*) *The Flowers, Leaves, Bark, &c.*

Common Name.—Common Elder.

Locality.—This shrub is found growing all over the United States, in hedges, &c. Flowers in June; fruit ripens in September.

Properties.—Every part of this plant possesses considerable medicinal qualities. It is "laxative, diuretic, alterative, anti-herpetic, refrigerant, vulnerary, deobstruent, &c. The bark is useful in dropsy: the flowers are excellent to purify the blood: from the leaves is made an excellent ointment, very useful in eruptions of the skin; and they also form an excellent poultice for inflammations. A tea made of the flowers is very good to remove the hepatic affections of children, and to obviate costiveness.

Employment.—The flowers enter into the *alterative syrup;* and the bark, simmered with wine, forms the *hydragogue tincture,* which is given in dropsical complaints.

No. 107. Rose. (*Rosa Gallica.*) *The Flowers.*

Common Name.—Red Rose.

Locality.—Native of the south of Europe, but now very common in our gardens. Flowers in June and July.

Properties.—*Astringent, tonic, &c.* Exhibited with advantage in passive hæmorrhage, mucous discharges, colliquative diarrhœa, and other similar

affections. We use occasionally this article externally, in the form of an eye-water, by adding rose water to the pith of sassafras, which constitutes a mucilaginous liquid, and is very serviceable in ophthalmia or inflammation of the eyes.

Employment.—Infusion, by adding two pinches of the petals to a pint of boiling water. Syrup of roses is made by adding one part of roses to nine of boiling water and ten of sugar.

No. 108. Henbane. (*Hyoscyamus Niger.*) *The whole Plant.*

Common Name.—Black Henbane.

Locality.—This is an annual plant, native of Europe, but grows plentifully with us, along road-sides and among rubbish. Flowers in July.

Properties.—This plant is a powerful narcotic, and in general better for external than internal use. Applied externally, in the form of poultice and fomentation, it is useful in all cases of painful and obstinate inflammations, such as fistulas, biles, and swellings of the breast.

Given in the form of tincture, it will sometimes allay irritation where opium cannot be administered.

It may be given in tic douloureux, tetanus, and other painful nervous affections; also in epilepsy, &c.

Employment.—In very severe pains a small tea-spoonful of the tincture may be given. Externally, a poultice may be made of the leaves by simmering them in water, and then adding the slippery elm bark. The extract in doses of from one to four grains, gradually increasing; the dose of the leaves the same as the extract.

No. 109. Flowering Ash. (*Fraxinus Ornus.*) *The Concrete Juice of the Tree*—(*Manna.*)

Common Name. Flowering Ash.

Locality.—Native of the south of Europe, particularly of Sicily and Calabria.

Properties.—Manna is a very mild purgative: it appears even that, when it is recently collected, it has no action on the intestinal canal; since, in the country where it is gathered, it is employed for the same purposes as sugar. By the alterations produced by age, it acquires its laxative properties. Indeed, the older it is, the more powerful are its effects.

Employment.—Dose, one drachm to three ounces in milk. This enters in the composition of our *worm powders.*

No. 110. Polypody. (*Polypodium Vulgare.*) *The Root and Tops.*

Common Names. Common Polypody, Rock Polypod, Fern-root, Rock-brake, Brake-root, Female Fern, &c.

Locality.—Found on mountains and rocks throughout the United States, from Canada to Carolina.

Properties.—This plant is *pectoral, demulcent, purgative,* and *vermifuge.* A syrup made of this plant is very good in pulmonary diseases; and, being united with liverwort, is said to have permanently cured a lady in South Carolina of the consumption in its last stage. A strong decoction of this plant, when given to children, will purge, and also expel worms. This root



107. Rose. (Rosa Gallica.)



108. Henbane. (Hyoscyamus Niger.)



110. Polypody. (Polypodium Vulgare.) 111. Mullein. Verbascum Thapsus.) 109. Flowering Ash. (Fraxinus Ornus.)

has also been used, in combination with purgatives, to expel the tænia or tape-worm, and, it is said, with success.

Employment.—Given in the form of syrup or decoction.

No. 111. Mullein. (*Verbascum Thapsus.*) *The Leaves and Blossoms.*

Common Name.—Common Mullein.

Locality.—This plant is a native of Great Britain, and grows plentifully with us, along the road-sides and in old fields.

Properties.—The blossoms of this plant are *anodyne, anti spasmodic, pectoral, &c.* They make a very pleasant tea, which is useful in coughs, hæmoptysis, hæmorrhage, &c. The leaves are very useful in dysentery and in piles. A decoction of the leaves may be drank in dysentery; and in piles they make a valuable fomentation to discuss the tumours. In the form of a poultice, the leaves and pith of the stock are useful in white swellings.

Employment.—As above directed.

No. 112. Skull-cap. (*Scutellaria Lateriflora.*)

Common Names.—Officinal Scull-cap, Mad-weed, Hood-wort, Blue Pimpernell.

Locality.—This plant is found all over the United States, in meadows, woods, near water, &c.; blossoming in the summer.

Properties.—*Tonic, nervine,* and *anti-spasmodic.* It is remarkably efficacious in chorea, or St. Vitus's dance: with the infusion I have cured a great number of cases of this disease. It has of late become quite famous as a cure for the bites of mad dogs. Its property as a medicine in this case was first discovered by Dr. Vanderveer, toward 1772. He used it with the utmost success; and is said to have, till 1815, at which period he died, preserved four thousand persons and one thousand cattle from becoming affected with the disease, after they were bitten by rapid animals. It is likewise stated that his son preserved, relieved, or cured forty persons in three years, in the states of New York and New Jersey, by the use of this article. It is also very useful in convulsions, tetanus, and tremours.

Employment.—Given in the form of infusion, to be drank freely through the day. It is an excellent nervine, used as a common drink.

No 113. Beth-root. (*Trillium Latifolium.*) *The whole Plant.*

Common Names.—Broad-leaf Beth-root, Beth-root, Rattlesnake-root, Wake Robin, Cough-root, Indian Balm, Ground Lily, &c.

Description.—Root perennial; stem terete, smooth, erect, with three verticillate leaves and one terminal flower.

Locality.—This plant is a native of North America.

Properties.—The root of this plant is *astringent, pectoral, tonic, antiseptic, alterative, &c.* The root is employed, internally, in hæmaturia, or bleeding from the kidneys, bladder, or urethra; in uterine hæmorrhage, immoderate menstrual evacuations, spitting of blood, hectic fever, asthma, cough, &c. in doses of a tea-spoonful of the powdered root, or in infusion. In fluor albus of females I have employed an infusion of this root with much success. Says Rafinesque: "Externally, this root is very useful, in the form of a poultice, in tumours, indolent and putrid ulcers, carbuncles, and mortifications, by itself, or, what is still better, in combination with blood-root."

As a tonic, this article, in combination with blood-root, is said to be, by the same writer, "a certain cure for inflamed carbuncles and ulcers, after a purg- has been administered." It is also said that this root restrains gangrene. In female complaints this is a good astringent, given in menorrhagia, leucorrhœa, and, after parturition, to astringe the uterine organs.

Employment.—The powdered root may be given in tea-spoonful doses. Externally, in the form of poultice. The infusion is made by adding a pint of boiling water to a table-spoonful of the powder; drink freely.

No. 114. Wormwood. (*Artemisia Absinthium.*) *The whole Plant.*

Common Name.—Common Wormwood.

Locality.—This is a perennial plant, native of Europe, but raised in our gardens; it is found growing in stony and uncultivated places in Europe and America: flowers in July and August.

Properties.—Wormwood is possessed of very valuable *stimulant* and *tonic* properties. When given in moderate doses it promotes the appetite and digestion, quickens the circulation, and imparts to the whole system a strengthening influence. It is given in all cases requiring the administration of tonics; in dyspepsia, and other atonic states of the intestinal canal, in certain cases of amenorrhœa, chronic leucorrhœa, and in obstinate diarrhœa, depending upon debility of the membranes of the intestines. It is often administered in intermittent fevers with complete success. It is likewise given as an anthelmintic. The herb is very useful in fomentations for bruises, and inflamations in general.

Employment.—Dose of the powder from one scruple to one drachm: infusion, from half to one ounce, in a pint of cold water. Externally, as a fomentation.

No. 115. Eryngo. (*Eryngium Maritimum.*)

Common Name.—Sea-holly.

Description.—This shrub rises from one to two feet in height, leaves circular, plaited form, shiny, like those of common holly, of a pale blue colour, and marked with white reticulated veins; flowers blue, and terminate the branches in round heads. The calyx consists of five erect, sharp-pointed leaves; the corolla is composed of five petals, which turn inward: the germen is beset with short hairs.

Locality.—It grows along the sea-coast, and flowers from August to September.

Properties.—*Aromatic*, *expectorant*, *tonic*, and *stimulant*, and has been found useful in pulmonary diseases. It strengthens the system, and, it is said, excites to venery.

Mr. Bowen, a Presbyterian minister, communicated the following to me: He states that a physician in Virginia, I think, became very celebrated for treating consumptive diseases, and this preparation was his principal remedy. I see that Henry has nearly the same recipe: Take eryngo-root or sea-holly, (not common holly,) half an ounce; pearl barley half an ounce: liquorice-root, three ounces: boil in one quart of water very gently to one pint; strain, and mix an equal quantity of cow's new milk; or mix a wine glassful of the decoction with new milk when used, which should be always fasting, that is, before breakfast, before dinner, and after supper



113. Skullcap (Scutellaria Lateriflora.) 113. Beth root. (Trillium Latifolium.) 114. Wormwood. (Artemisia Absinthium.)



116. Striped Alder.



Red Raspberry.

No. 116. Striped Alder.

Says Dr. G. Westervelt: "Among all the valuable discoveries which I have made during five years' successful practice and experience, is the shrub called tobacco wood, striped alder, &c.; the enclosed drawing is as correct as I could imitate. This plant grows as high as twenty feet, with the branches confined mostly to the top, where the leaves put out in pairs from the branches, and are not very numerous. They are as long (some of them) as the two hands of a man, of a pale green colour, very soft and smooth, and a strong, agreeable smell; but when dry, have an odour like hyson tea, or young hyson: they are very mucilaginous, and, mixed up in hot water, form a poultice very similar to slippery elm bark flour. The bark of the shrub is of a greenish cast, and striped; the fruit is from two to three inches in diameter, tough, and yielding. It grows on sides of hills, and in thick, shaded woods, where there is running water below. Leaves from 1 to 8 inches wide.

Properties.—The leaves astringent, demulcent, pectoral, antiseptic, alterative, refrigerant, and a powerful febrifuge and counter-irritant.

Employment.—A tea of the leaves allays and relieves vomiting, under all circumstances, sooner than any other article known: half an ounce makes a quart, steeped five or ten minutes; dose, a wine glassful once in twenty minutes: the same in any internal inflammation; four times a day in pulmonary affections or internal ulcers. Externally, it is a powerful refrigerant &c., as above, in all cases of swelling and inflammation, from the head to the feet, of every name and denomination. Caked breasts of women are relieved and cured sometimes in twenty-four hours, by anointing them with an ointment made of the leaves, two ounces; bitter-sweet root, one ounce; spirits, one gill; lard, four ounces: boil; then soak a necessary quantity of the leaves in hot water sufficient to soften them, and apply to the breast; a little elm flour may be added, to form a poultice. In general, the leaves should be kept whole, and three or four soaked in hot water and vinegar, equal parts, just enough to soften them. In all cases of inflammation of the stomach, lungs, spleen, liver, intestines, bladder, kidneys, pleura, and uterus they are indispensable: but first apply a mustard poultice, until the skin is red, then the leaves, and change them every three or six hours, according to the violence of the case; and between each application bathe the part over the seat of the disease with an anodyne wash, and take the tea internally, as above directed, with the other appropriate remedies for inflammatory complaints."

BOTANICAL SYNOPSIS

OF PLANTS OCCASIONALLY USED, AND RECOMMENDED FOR FARTHER INVESTIGATION.

American Columbo—(*Frasera Carolinensis.*)—Root bitter and nauseous: vomits and purges; *tonic;* given in weakness of the stomach attended with costiveness.

Motherwort—(*Leonurus Cardiaca.*)—Is nervine, anti-spasmodic, and emmenagogue; useful in hysteria, and to promote the menses. Given in the form of tea, it is anodyne: relieves pains peculiar to females.

Laurel.—(*Kalmia Latifolia.*)—The powdered leaves are employed successfully in *tinea capitis* and in certain forms of fever.

Lungwort.—Found growing on maple trees; is good in coughs and defluxions of the lungs.

Maiden Hair.—This plant is mucilaginous and subastringent; good in coughs, asthma, pleurisy, jaundice, fevers, &c.

Watermelon.—The fruit is a good diuretic, and very cooling in hot, bilious constitutions. The seeds, used in Holland gin, make an excellent medicine in dropsy and suppression of urine.

Jerusalem Oak—(*Chenopodium Anthelminticum.*)—It is emmenagogue, detergent, and anthelmintic; the oil is much used as a vermifuge.

Wild Marjoram—(*Origanum Vulgare*)—Fragrant, pungent, acrid, hot, nervine, stomachic, corroborant, detergent, stimulant, menagogue, and diaphoretic; useful in tea, for cough, asthma, chlorosis, œdema. The distilled oil has all the properties; it is acrid and caustic, burns the skin, relieves toothache, &c.

Broomrape—(*Orobanche Americana*)—Astringent, antiseptic, and antisyphilitic: considered in the west as a specific for gonorrhœa and syphilis; useful in obstinate ulcers apthæ, and herpetic sores, diarrhœa, and dysentery.

Partridge Berry—(*Gaultheria Procumbens.*)—Mild diuretic and emmenagogue; used in New England to cure dropsy; given in tea. Berries mild astringent. A popular remedy in the north for diarrhœa, and for disury in Carolina. Said to facilitate parturition.

Red Mulberry—(*Morus Rubra*)—Fruit refrigerant and corroborant; useful in sore throat, angina, and putrid fevers: syrup chiefly used.

Beech Drops—(*Leptamnium Virginianum.*)—Called also cancer root. Root and stem astringent, bitterish, and nauseous; useful in cancers: grow under beech trees. They are the basis of Martin's powder, (with white arsenic, sulphur, and ranunculus;) a painful remedy for curing cancers by application, but injurious in scrofula and scrofulous cancers.

Henry recommends a decoction for St. Anthony's fire, to be drank freely: and the parts affected kept moist with linen rags wet with the liquid.

St. John's-wort—*Hypericum Perforatum.*)—Is vulnerary, pectoral, pellant, nervine; blossoms chiefly used; although yellow, they dye oils red: infused in bear's oil, sweet oil, &c., they make a fine balsamic ointment for wounds, sores, swellings, ulcers, tumours, rough skin, &c. A tea of the leaves gives relief in diseases of the breast and lungs. Used by empirics in diarrhœa, menorrhœa, hysterics, hypochondria, mania, low spirits. A syrup made with sage is a specific for coughs. Dose, a table-spoonful for a child twelve months old; half, if six months old.

Corsican Worm-weed—(*Fucus Helminthocorton.*)—This plant grows on the coast of the Mediterranean, and especially on the Island of Corsica. This plant (the whole of which may be used) is possessed of very powerful vermifuge properties, which act very powerfully upon the intestinal worms. It is principally administered to children, for the expulsion of the lumbricoid worms. The dose of the powder is from ten grains to two drachms, mixed with honey, &c.

Cowhage—(*Dolichos Puriens.*)—The operation of this article seems to be merely mechanical. It has been found particularly useful in expelling the round worm, *lumbricus teres*; the spiculæ irritating and aiding its expulsion, by wounding it without affecting the intestines. It is prepared by dipping the pods in syrup or molasses, and then with a knife scraping off the hairs along with the syrup, until they form a mixture of the thickness of

honey, to be given in doses of from a tea-spoonful to a table-spoonful, in the morning, and followed by a brisk cathartic.

Water Hemlock—(*Cicuta Maculata*)—This plant acts in the same manner as the narcotic poisons. It has been used of late, by several practitioners, as a substitute for the *conium maculatum*. Its effects were very analogous to those of the true hemlock, but rather more powerful. A primary symptom which attended a large dose, was nausea and vomiting.

Strong-scented Lettuce—(*Lactuca Virosa.*)—This plant acts upon the nervous system in a manner similar to the hyoscyamus: this is the reason why it may be substituted in many cases for opium. In sufficiently large doses, it produces nausea, alvine evacuations, and often, especially in cases of dropsy, a remarkable increase in the secretion of urine. It has been exhibited with success in ascites, engorgements of the abdominal viscera, jaundice, &c., and as a substitute for opium in nervous cases. Extract, the dose from two grains to one scruple.

Vervain—(*Verbena Hastata.*)—The roots of this plant, when boiled down to a strong decoction, and that decoction drank, are very beneficial as a tonic in intermittents and scrofula; they open obstructions of the viscera, promote the menses, and are good in gravelly complaints, coughs, wheezing, and to expel worms. They should be prepared in strong decoction, and drank freely.

Yarrow—(*Millefolium.*)—This plant possesses considerable medicinal property as a detergent, purifies the blood, opens the pores, removes obstructions, &c. It stops the spitting of blood, and cures the bleeding piles; and is also very beneficial in dysentery. It may be given in the form of decoction, sweetened with honey.

Wintergreen—(*Gaultheria Repens*)—Wintergreen is stimulant, anodyne, astringent, emmenagogue, anti-spasmodic, diaphoretic, milky, and cordial; and a popular remedy in many parts of the country. It is generally used as a tea; but the essence and oil possess eminently all the properties, and are kept in the shops. The oil is used as a disguise to many of the popular panaceas.

Iceland Moss—(*Lichen Icelandicus.*)—The Iceland moss is given in colds and coughs. It is soothing and nutritious. Cover a handful with sal æratus water, let it stand an hour, strain and add a quart of boiling water: this may be sweetened, and a little lemon juice added; to be drank freely.

Ice Plant—(*Crystallinum.*)—The root of this plant has, by some, been thought almost an infallible remedy for fits in children. The juice, diluted in cold water, is useful in sore eyes. The roots should be pulverized, and kept in bottles. Children troubled with fits may take from half to one tea-spoonful of the powder, in a cup of peony-root tea, &c.

Ground Ivy—(*Glechoma Hederacea*)—The leaves of this plant, made in a decoction, are a good purifier of the blood, a pectoral, &c. This decoction is good in consumption, obstructions, laxity, and debility of the viscera; for cleansing and healing ulcers in the lungs, kidneys, and other internal parts; and is likewise a good remedy in jaundice and asthmatic coughs.

Golden Rod—(*Solidago Virgaurea.*) The flowers are aperient and corroborant, and the leaves gently astringent. The flowers have been found beneficial in removing obstructions of the urinary organs, in gravelly complaints, and ulcerations of the bladder; are good in vitiation of the humours and in the first stages of dropsy. The leaves are good in debility and laxity of the viscera or bowels, and all disorders proceeding from that cause. They may be taken in infusion or decoction.

Five-Finger—(*Potentilla Reptans.*)—The root is a gentle astringent, and has been found by experience to be very beneficial in fevers, and particularly when there is great debility, lassitude, and night sweats, which last it seldom fails to check; it also helps the appetite. It is taken in decoction, or may be boiled in milk. It is serviceable in allaying fluxes, immoderate flow of the menses, &c.

Fever-few—(*Matricaria Parthenium.*) *Leaves and flowers*—Both the wild and garden fever-few have the same virtues. They are warm, aperient, carminative, bitter, and strengthen the stomach, expel wind, promote the menses, destroy worms, and are beneficial in hysterical complaints and lowness of spirits. For a decoction, pour two quarts of boiling water on two handsful of the leaves, of which a tea-cupful may be taken three or four times a day, in order to promote the menses: the same may be taken in colds and fevers. In hysterical complaints a tea-spoonful of the compound spirits of lavender may be added to the above decoction.

Cleavers—(*Galium Aparine.*)—We copy the following from Dr. Smith's Botanic Physician:

"Cleavers is one of the most valuable diuretics that our country produces. I have found it an excellent and speedy medicine in all suppressions of the urine and gravelly complaints, and is a powerful discutient.

"It has also been found beneficial in the cure of scurvy and spitting of blood. The expressed juice of this plant, mixed with oat meal to the consistence of a poultice, and applied cold, over an indolent tumour, three times a day, keeping the bowels open in the meantime by castor oil, and taking a table-spoonful of the juice every morning, will often disperse it in a few days. Infusion of this herb should always be made in *cold water*, heat destroying its virtues: three or four ounces of the dried herb to a quart of water are sufficient; this should be drank for a common daily drink. It is an admirable remedy in gravelly disorders, often curing them entirely, alone. It seems to possess a solvent power over the stone or gravel, crumbling it into a sandy substance, so that it is discharged without difficulty. When urinary obstructions proceed from a collection of cold, slimy, or muddy substance in the kidneys or bladder, this effectually clears it out in all cases. In inflammatory affections of the kidneys or bladder the cleavers infusion is peculiarly applicable, from its cooling as well as diuretic quality. It gives great relief in the scalding of the clap."

Centaury—(*Centaurium Minor.*)—*Leaves and flowers.*—Centaury is justly esteemed one of the most efficacious bitters indigenous to the United States, and is a good substitute for the English gentian, which it resembles in taste. It is a good stomachic, emmenagogue, febrifuge, and vermifuge. Two ounces of the leaves and flowers of centaury and one ounce of orange peel may be infused in two quarts of brandy for two weeks. One table-spoonful of this tincture, taken before breakfast and dinner, will create an appetite; and children having worms may take two tea-spoonsful or more every morning, which will effectually destroy the worms.

Caraway—(*Carum Carui.*)—*The seeds.*—This plant is cultivated in our gardens, both for medicinal and culinary purposes. On account of their aromatic smell, and warm, pungent taste, the seeds of caraway may be classed among the finest stomachics and carminatives of our climate. To persons afflicted with flatulency, and liable to cholics, if administered in proper quantities, they generally afford considerable relief.

Striped Bloodwort—(*Laphathum Sanguineum Rubrum*)—The properties of this plant are, antiseptic, voluntary, astringent, and pectoral. A de-

coction of it, drank, will immediately stop immoderate flowing of the menses, and other hæmorrhages. The powder of bloodwort, mixed with an equal quantity of blood-root and a little alum, and used as a snuff for polypus in the nose, frequently destroys it in the course of a week. The decoction of this root, made into a syrup, has been found very beneficial in consumptions accompanied with spitting of blood. The juice of the green leaves of bloodwort, boneset, and rattlesnake plantain, equal parts, and a gill drank at a dose, is said to be an infallible cure for the bite of a rattlesnake or any other poisonous reptile. The bruised leaves should also be applied to the wound, and changed often.

Whortleberry—(*Vaccinium.*)—This plant is vulgarly called, "huckleberry," and is familiar to most persons. The fruit is much used and esteemed. The berries contain very considerable medicinal properties. They are, with the root, strongly *diuretic*, and seldom fail of relieving or curing gravelly and dropsical affections. They may be bruised, put in gin, and drank as the stomach will bear.

Horsemint—(*Monarda Punctata.*)—A powerful *diuretic*. A strong tea, drank, affords immediate relief in gravel and suppression of urine. It restored one person, aided by the warm bath, when other means had failed, and when he had nearly lost his senses from pain. The oil is very useful.

Hemlock Tree.—The bark, gum, and leaves are all useful. The leaves are good in inflammatory rheumatism, to purify the blood and to produce perspiration; the tea given freely. The gum, four parts; white turpentine, one part, melted together, and spread on leather for a plaster, are very efficacious to remove pain.

Spruce.—The leaves and branches make a pleasant and healthy beer, good for scurvy and to purify the blood.

Hollyhoke—(*Althæa Rosea.*)—The flowers are astringent; a tea of them and rose leaves is useful in flour albus; may be drank freely.

Culver's Physic—(*Leptandria Virginica.*)—Called black root, brinton root, bowman root, &c. A good purgative; it operates with mildness and certainty, without debility. In typhus and bilious fever it is said to remove *black, tarry* and *morbid* matter from the intestines. Dose, a large teaspoonful in half a gill of boiling water, sweetened. If it does not operate, repeat in three hours.

Balm of Gilead—(*Populus Balsamifera.*)—The buds from the tree are filled with a rich balsamic gum, which is good in coughs and debility: to one ounce of the buds, bruised, add one pint of fourth-proof spirits; dose, from a tea to a table-spoonful, three or four times a day, in sweetened water. Excellent also for cuts and wounds.

Sweet Clover—A very handsome, fragrant plant, cultivated in gardens. The bruised plant, simmered with fresh butter or lard, and a little resin added, makes a valuable salve for all kinds of ulcers.

Sweet Fern—(*Comptonia Asplenifolia.*)—Alterative, astringent, and tonic. When the *bloody flux* prevailed in Rhinebeck, in 1781, and swept off the inhabitants daily, an infusion of this herb cured all who drank it. A strong tea expelled a tape-worm from a person in Rhode Island. The tea is good to check night sweats; it also makes a pleasant beer.

Adder's Tongue—(*Erythronium Americanum.*)—Dog-tooth violet, snake-leaf, rattlesnake violet, yellow snow-drop, &c. It is stated that this plant is a remedy for the scrofula; the fresh leaves and root are stewed in milk, and applied to the scrofulous sores as a poultice, which heals them speedily, a tea of the same is to be drank at the same time.

PRICKLY-ASH—(*Xanthoxylum.*)—Both the bark and berries are used. They are good, in the form of tea, to purify the blood; useful in chronic rheumatism, pain in the breast, and debility.

NANNY BERRY *or Bush*; *Black Thorn.*—Good for sore mouth and sore throat.

AMERICAN SARSAPARILLA—(*Aralia Nudicaulis.*)—Alterative; equally as good to purify the blood as foreign sarsaparilla. Old Dr. Bubb considers it superior to the latter.

SMART-WEED—(*Arse-smart.*)—A tea of this is good to stop vomiting. A decoction is exceeding good to reduce swellings, by applying it as a fomentation, simmered in vinegar. It soon removes the black and blue spots in bruises, and is valuable in sprains. Botan'l name, *Polygonum Hydropiper.*

MARSH-ROSEMARY.—Grows only in salt marshes. A powerful astringent: useful in bowel complaints, flour albus, &c.; make a tea, and drink. Good also for a gargle in sore mouth.

YAW-ROOT—*Marcory, Cock-up Hat, Queen's Delight*—(*Stillingia Sylvatica.*)—Large root; purgative, alterative, anti-venereal. Valuable in yaws, ulcers, venereal, and leprosy. Said to be one ingredient in Swaim's panacea. Make a syrup or decoction, and take sufficient to act as a laxative.

MOUNTAIN-MINT—(*Melissa Grandiflora.*)—Stimulant and sudorific. The tea of it is useful in colds, and is said to relieve the gravel when other means fail. A hot tea also returns the menses, with bathing the feet.

DEVIL'S BIT—(*Veratrum Lutium.*)—This plant rises two or three feet high, with round, green, smooth stalk, with many long, smooth, green leaves, nipped at the edges; at the end of each branch stands a round head of numerous small blue flowers. Grows in meadows and moist places. Numerous fibres shoot out from the root, which are small and indented. This root is useful in pains of the breast, colic, and wind. Half a tea-spoonful of the powder may be taken in molasses or in a tea, or bitter. This root no doubt possesses great medicinal properties.

BLESSED THISTLE, *Holy Thistle*—(*Carduus Benedictus.*)—An annual plant, cultivated in gardens for beauty, both in England and America; leaves with sharp-barbed points or prickles; yellow flowers. Makes a good bitter to strengthen the system and excellent to excite perspiration in fevers, in the form of tea. It cured a case of yellow fever given up as hopeless.

NETTLE—(*Urtica Dioica.*)—The juice is astringent, and good in gravel, bleeding of every kind, and when snuffed up the nose, checks bleeding. A tea is good for those who pass bloody urine, and for incipient consumption.

WHITE HELLEBORE—(*Veratrum Album.*)—Grows by the sides of brooks, and is among the first plants seen in the spring, with large green leaves. A few grains of the powder causes a continual sneezing. An ointment cures the itch, scald head, and other eruptions. A substance, called *veratria*, is made from it, which is powerful to deaden pain. *See Neuralgia.*

BUTTERNUT—(*Juglans Cinerea.*)—An extract of the bark, formed into pills size of a pea, with a little essential oil, makes a very good purgative. About four are a dose.

CUBEBS, pulverized, are useful in discharges from the urethra, gleet, &c. Dose, a tea-spoonful three times a day, in molasses or sweetened water.

SWEET GALE—(*Myrica Gale.*)—A tea is said to be a cure for the piles.

WHITE BRYONY—(*Bryonia Alba.*)—A drastic purgative. Sydenham used it in dropsy. An extract may be made into pills, and give sufficient to purge freely, for dropsy and suppression of urine.

COMMON RASBERRY.—A tea made of the leaves is used for canker.

Virginia Speedwell.—Highly recommended for dropsy. Make a tea, and drink freely. Botanical name, *Veronica Officinalis.*

Wild Parsley—(*Petroselinum.*)—A warm and powerful diuretic. Very efficacious in chronic inflammation of the bladder and prostate gland, suppression of urine, gravel, &c. Add one ounce of the seeds to one pint of best Holland gin, and take half a wine glassful four or five times a day; or a decoction may be taken.

Uva Ursi.—Good in the same complaints as the above, and in ulcerations of the kidneys and bladder. A tea to be freely drank.

Yellow Parilla—(*Menispermum.*)—Grows plentifully in the western states, and is highly recommended for purifying the blood. Make a tea, and drink freely.

Fever-bush, Wild Allspice, Spice Wood.—A tea of it is recommended in fevers, particularly in the inflammatory type.

Fleabane, Colt's tail.—(*Erigeron Canadense.*)—A strong styptic. Excellent to stop bleeding from wounds, in form of powder: a tea is good to check any kind of internal bleeding, especially of the lungs; drink it cold.

Croton Oil.—Procured from a tree in the East Indies. Very efficacious in severe constipation, where other means fail of procuring a passage, as in colic. From one to three drops are a dose, on sugar or in milk, every two hours.

Bind-weed, Man in the ground.—One foot high, creeping, large root, deep in the earth; flowers bell-shaped, white, with a purple tinge. Sometimes grows as large as a person's leg. A purgative and diuretic. Has been found useful in cough, asthma, debility, and dropsy. A syrup of this root and of balm of Gilead buds is very beneficial in weekly, consumptive diseases.

Calamus, Sweet Flag.—A tea of this is excellent in flatulence, colic, and wind.

Agrimony.—A tea of it is highly recommended for asthma, scrofula, gravel, and eruptions of the skin.

Blue Cardinal Flower—(*Lobelia Syphilitica.*)—A milky plant, and grows plentifully in the western states: said to be diuretic, cathartic, sudorific, purgative, and anti-venereal, and good in bowel complaints: from half to a table-spoonful of the pulverized root, taken in water, and repeated, if necessary. *Lobelia Cardinalis* possesses similar properties.

Pimpernel.—Foreign and American plant; a decoction is recommended for cleansing ulcers.

Cinquefoil, Five-finger—(*Potentilla Reptans.*)—A tea has been found useful in fevers, and to check bowel complaints.

Crosswort—(*Cruciata.*)—A tea is said to be useful in coughs, by promoting expectoration.

Feather-Few.—A common garden plant; a tea of it, freely drank, expels wind, promotes the menses, and relieves hysterics and low spirits.

Frostwort—(*Cistus Canadensis.*)—Said to be a remedy for the king's evil; make a poultice and apply: also make a tea and drink freely; this is said to have cured a number. Sometimes called *Rock Rose.*

Fumitory—(*Fumaria Officinalis.*)—A tonic, bitter, anti-scorbutic; and good for cutaneous eruptions. Make a tea and drink freely, and wash the parts with the same.

Horsweed, Stone-root, Ox balm, Hardback.—A decoction is recommended for the gravel.

Wild and Garden Lettuce.—The extract, without causing costiveness, is an anodyne, and allays coughs: take two or three pills occasionally.

Life-root.—Says Henry, "I have found it a sure cure for all complaints of the gravel, and pains in the breast." Is a febrifuge and a powerful diuretic; take a tea-cupful of the tea three times a day. He has cured numerous cases of gravel by it.

Masterwort.—Expectorant and laxative. "Good," says Henry, "in colic, indigestion, asthma, cold, catarrh, and ague:" take a tea-cupful of the tea three times a day.

Mugwort.—A woman, who was affected with hysteric fits for several years, was perfectly cured, by taking a tea-spoonful of the powdered leaves four times a day, after she had tried various other medicines. It is recommended for worms, and to promote the menses and urine.

Common Sorrel.—An inspissated juice makes a plaster which destroys tumours and incipient cancers; to be applied on leather: it is very painful to bear.

Scabious.—Excellent to purify the blood in all skin diseases. A syrup of it promotes expectoration in dry coughs: it is diuretic and emmenagogue.

Snake-weed—(*Polygonum Bistorta.*)—This root makes a good gargle in sore mouth, and is a powerful astringent; stops all discharges by the womb or bowels: to be given in powder or tea.

Soapwort—(*Saponaria Officinalis.*)—A strong decoction, given freely, cures the jaundice and obstruction of the liver, and purifies the blood.

Stinking Goosefoot—(*Chenopodium Fœtidum.*)—Anti-spasmodic; better in hysterics than asafœtida.

Sweet Sicily.—Valuable in syrup for pain in the breast, coughs, and consumption. A tea-spoonful or two of the powder is recommended for worms, to be given in molasses night and morning.

Spleenwort.—A tea is said to cure the gravel, and pain in the urinary organs and kidneys.

Succory.—Laxative; good in jaundice, hectic fever, nervous debility, and weakness of the bowels: make a tea and drink freely.

Striped Bloodwort.—Astringent, pectoral; a syrup is good in consumptive diseases.

Aven's-root—(*Geum Virginianum.*)—Called chocolate-root, throat-root, cure-all; a powerful astringent and a good tonic. A strong decoction, sweetened, is useful in all cases of debility, dyspepsia, bleeding at the lungs, relax, colic, and sore throat. Dr. Pardon Lapham, of this city, informs me that this is the best article he uses for uterine hæmorrhage or flooding, and always gives it with success. Make a strong tea, and give freely and often.

Betony—(*Betonica Officinalis.*)—Emetic and cathartic; recommended for gout and rheumatism: take a cup of the tea three or four times a day.

Snakehead—(*Chelone Glabra.*)—Is good to expel worms: make a tea and drink; after a few days give a purge.

Snake-root, Rattlesnake-root, Corn Snake-root—(*Eryngium Aquaticum*—A powerful diuretic and expectorant; good in dropsy and gravel; make a tea and drink freely. The root, bruised or chewed, and laid on the wound, cures the bite of a snake.

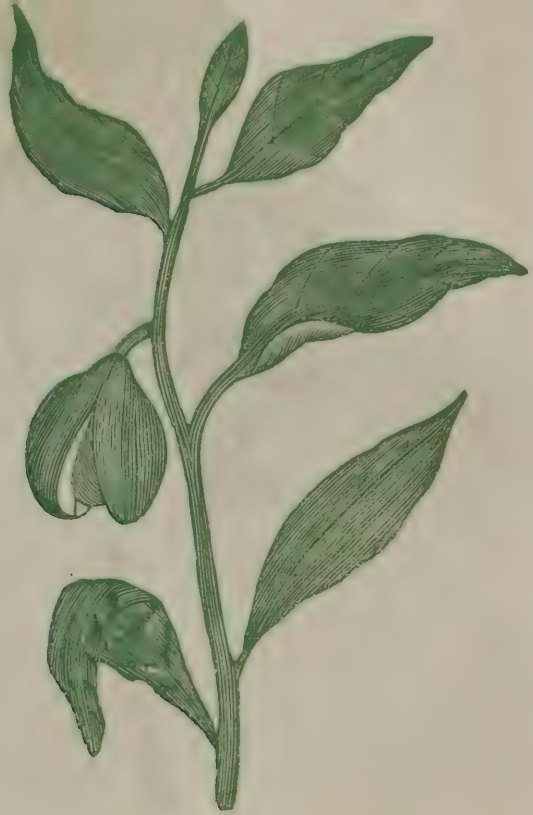
Cow Parsnip—(*Heracleum Sphondylium.*—Recommended in epilepsy and flatulence. Give freely a strong decoction.

Thimble-weed—(*Rudbeckia Laccinata.*)—Diuretic and balsamic; recommended in wasting diseases of the kidneys: given freely, in decoction.

Lavender.—A common garden plant; aromatic, carminative, pectoral, and nervine. The flowers enter into the "lavender compound."



Ginger.



Nutmeg.



Water Fennel.



Virginia Speedwell.

MOUNTAIN DITTANY, *horsemint, stonemint, wild basil, sweet horsemint.*—Stimulant, nervine, sudorific, cephalic, and aromatic. This plant is popular for colds, headache, and in all cases where it is necessary to excite perspiration. Good for nervous headache, hysterics, and suppressed menses and urine.

MOUSE-EAR—(*Hieracium Pilosella.*)—The decoction, drank freely, is good in jaundice, relieves the stone and griping in the bowels, and makes a good gargle for sore throat.

PERSIMMON BARK.—A decoction is good to inject in wounds, where there is a discharge of sinew water. Very astringent.

PRINCE'S PINE—(*Pipsissiway.*)—A tea is used to purify the blood.

WINTERGREEN.—Diuretic; good to promote a discharge of urine.

RUE, GARDEN.—A tonic bitter.

TWIN-LEAF—(*Jeffersonia Diphylla.*)—Grows in the west, and is highly recommended in the rheumatism. Add two ounces of the dried root to one quart of spirits; dose, a table-spoonful three times a day.

WHITE OR YELLOW POND LILY.—A decoction, mixed with elm bark, makes a very good poultice for white swellings, king's evil, and other swellings.

FALSE CROMWELL, WILD JOE'S TEARS, GRAVEL WEED—*Onos modium Hispidum.*)—Dr. A. Robinson, of Indiana, says that this plant is a solvent for the stone. Steep the roots and seeds in water, and drink freely.

GENSING—A pleasant tonic for weakness of the stomach.

NEPHRITIC PLANT, CUTTING ALMOND—(*Parthenium Integrifolium.*)—A tea is recommended for the stoppage of urine in gravel and stone.

WATER PLANTAIN—(*Plantago Cordata.*)—Boil the roots till soft, mash them, and apply for a poultice. "Removes inflammation, reduces swelling and cleanses and heals the most foul and inveterate ulcers."

GREEK VALERIAN, ABSCESS-ROOT, BLUE BELLS, SWEAT-ROOT—(*Polemonium Reptans.*)—Howard, in his medical work, attaches extraordinary virtues to this plant; says the Indians make a tea of the root and drink freely in fevers, pleurisy, and where they wish to produce copious perspiration: it cleanses the blood of humors. A person alleges that we will find this plant excellent for consumptions, and all affection of the lungs and liver. It is stated that many cases of consumption have been cured by it; deserves farther trial.

FIGWORT, SQUARE STALK, CARPENTER'S SQUARE, HEAL ALL—(*Scrophularia Marylandica.*—"A tea, drank freely," says Smith, "restores the lochial discharges, and relieves the pains of difficult menstruation."

AMERICAN GENTIAN—A good tonic.

WOLF'S-BANE, LEOPARD'S-BANE—(*Aconite.*)—Narcotic; the extract is used to relieve pain: dose, three or four grains.

BLUE VIOLET.—(*Viola Odorata.*)—Demulcent, tonic, and laxative: recommended in tea-spoonful doses, for the piles.

LILY OF THE VALLEY—(*Convallaria Majalis.*)—The root and flowers, in extract, purge like aloes.

BLACK ASH BARK.—With the extract of the bark I once cured one of the most inveterate cases of salt-rheum, when all other means failed. Spread and apply as a plaster.

BENNE PLANT.—An annual plant. A few leaves, dipped in cold water, make a clear mucilage, which has been highly extolled for bowel complaints of children: to be given as a common drink.

CRAMP BARK, HIGH CRANBERRY—(*Vaccinium Oxycoccos.*)—Anti-spasmodic. "A strong tea, drank freely, is very effectual," says Smith, "in relaxing cramps, and spasms of all kinds."

Water Rushes.—A popular medicine for gravel, dropsy, and suppression of urine: make a tea and drink freely.

Tag, or Spotted Alder.—Alterative. Make a tea and drink often, for the blood.

Water Fennel.—In doses of five grains, pulverized, given three times a day, is recommended for consumption.

Labrador Tea—(*Ledum Latifolium.*)—Diuretic, balsamic.

Sweet Balsam, Life Everlasting.—A tea is good for pain in the breast, weakness of the lungs, and in consumption, strangury, gravel, and fluor albus. Excellent to excite perspiration.

Horseradish.—Grated root, in cider, good in chronic rheumatism, palsy, dropsy and debility. Leaves, applied to the bowels and feet, relieve colic and swellings.

Flower de Luce, Blue Flag—(*Iris Versicolor.*)—The root, in decoction, promotes discharge by urine, and relieves dropsy.

Cat-tail Flag-root.—Simmer till soft, and apply as a poultice for inflammation.

Balm.—A pleasant and cooling tea in fevers.

Crowfoot Buttercups—(*Ranunculus Acris*)—The bruised root, applied to the skin, produces a blister. Good where a blister is required, in diseases of the joints, and old deep-seated pains. When eruptions strike in, it may be applied, to redden the skin without blistering.

Prickly-pear.—Scrape the inner part and apply to ulcers twice a day till cured. For corns, bathe the foot in ley water, pear off the corn, and apply, on linen, till cured.

Fennel Seed.—A tea is useful to expel wind in adults or infants.

Garlic.—A syrup is good for coughs and inflammation of the lungs, particularly in infants; also to apply to the feet in inflammation.

Ginger.—A warm, aromatic root. In syrup or tea, is good to relieve pain arising from wind.

Parsley.—Excellent to promote a discharge in suppression of urine from any cause.

Orange.—The juice is good to swallow in fever. The external part makes a useful tonic bitter to promote an appetite.

Lemon.—The juice, mixed with water and sweetened with loaf sugar, is very cooling in fever.

Cinnamon.—Useful in flatulence and bowel complaints. Enters into the lavender compound.

Hyssop.—A tea is used for colds.

Gum Arabic makes a fine mucilage for strangury and scalding of urine.

Tobacco.—A tea is used for injection in severe constipation of the bowels and worms of the rectum.

Nutmeg.—Similar to cinnamon.

MINERALS, MINERAL ACIDS, SALTS, ANIMAL AND EARTHY SUBSTANCES, &c.

Oil of Vitriol, Sulphuric Acid—(*Acidum Sulphuricum.*)

Description and History.—It may be prepared by burning, in a leaden chamber, a mixture of eight parts of sulphur with one of nitre. The floor being covered with water, absorbs the gas, and diluted sulphuric acid is the result.

General Properties and Employment.—It is extremely caustic, destroying the clothes as well as the texture of the body wherever it is applied. It is the principal article of the *elixir of vitriol*, and much in use as a remedy in night sweats in consumption. It is used by some as an astringent, to check the flow of blood in hæmoptysis, and other kinds of bleeding. It is never administered in a concentrated state.

Sulphuric Æther—(*Æther Sulphuricus.*)

Description.—Sulphuric æther is colourless, limpid liquid, extremely volatile, of a strong, peculiar smell. It is formed from sulphuric acid and alcohol.

Properties and Employment.—It is a good anti-spasmodic and stimulant. Its dose is from twenty to thirty drops, given in some kind of tea. It is exhibited with advantage in most of the nervous affections, such as spasmodic vomiting, nervous colics, hysteria, and asthma. It is also useful in typhoid fevers, in calming the convulsive motions, hiccough, &c. Externally, it is used as a refrigerant.

Lime—(*Calx.*)

Properties and Employment.—Lime water is prepared by pouring hot water upon unslacked lime; is anti-acid and antiseptic. By adding a small portion of the muriate of mercury, it forms the *yellow wash*, which is applied to venereal ulcers, and soon heals them.

Copperas, Green Vitriol, Sulphate of iron—(*Sulphas Ferri.*)

Description and History.—Copperas is a salt composed of iron and sulphuric acid. It is found native, and also combined with other substances.

Properties.—We use it only as an external application. By submitting copperas to the action of a red heat, a red powder is formed, which acts as a very powerful astringent. It is applied in cases of hæmorrhage, piles, &c. It is also serviceable, combined with lard, in cutaneous eruptions.

Sal Ammoniac, Muriate of Ammonia—(*Murias Ammoniæ.*)

Description and History.—This article is found in nature, principally in the vicinity of volcanoes. Mount Ætna furnishes it in considerable quantities. It comes to us in masses, concave on one side and convex on the other, or in conical pieces, crystalline, white, inodorous, of a bitter and acrid taste. It is compressible, and difficult to pulverize.

Properties.—This is a cooling application for inflammation, and especially for erysipelas and inflammatory rheumatism.

Muriate of ammonia, in combination with a decoction of wormwood, makes an excellent application for inflammations, the result of sprains or contusions. In inflammation of the brain a wash, made of sal ammoniac, vinegar, and water, is very useful in relieving the heat of the head.

Muriate of Mercury, Corrosive Sublimate—(*Murias Hydrargyri, Hydrargyri Oxymurias.*)

Description and History.—This compound is found in the shops in the form of circular pieces, white, semi-transparent on the edges; convex, smooth, and shining on one side; extremely acrid, caustic, and metallic taste. It is prepared by mixing, in a close vessel, four parts of common salt, one part of peroxyde of manganese, and five parts of sulphate of mercury. This mixture is submitted to heat, and the muriate of mercury volatilizes and condenses on the superior sides of the vase.

Properties.—With borax or lime water it forms the *yellow wash.* I formerly used this as an external application; but I now use the *vegetable caustic* instead, which I consider a much superior article.

Spanish Flies, Cantharides—(*Cantharis Vesicatoria.*)

These insects are found in Spain, Italy, and France, on trees. They are brought here pulverized, and a plaster made of them, which produces a blister. In certain cases they may prove beneficial; but we rarely use them, as they seem rather an unnatural remedy.

Saltpetre, Nitrate of Potash—(*Nitras Potassæ.*)

Description and History.—This salt is found in large quantities in nature, principally in the East Indies, Spain, the kingdom of Naples, and in old walls, on the surface of which it effloresces. It is also extracted, by chemical process, from the earth; found under old houses, barns, &c. It is white, transparent, unalterable in the air, inodorous, of a cool and sharp taste, followed by a slightly bitter after-taste.

Properties.—This article is refrigerant and diuretic; it enters into the urinary decoction and *pile electuary.*

Red Oxide of Lead, Red Lead—(*Plumbi Oxidum Rubrum.*)

Description and History.—Red lead is found in the form of powder, of a very bright orange red colour. It is composed of lead and oxygen; formed by submitting common lead to a great degree of heat in a large oven prepared for that purpose, which produces a scum upon the surface. This forms an oxyde of lead. The white lead is prepared by submitting common lead to the action of acetic acid.

Properties—The properties of red and white lead depend not upon the lead itself, but upon the oxygen with which they are combined. These preparations form the basis of some plasters, which, by reason of the large quantity of oxygen they contain, are very serviceable.

Sugar of Lead, Saccharum Saturni, Superacetate of Lead—(*Plumbi Superacetas.*

Properties.—As an external application, sugar of lead is often employed

to obtain its astringent effect. A weak solution is a common application in inflammation.

Caustic Potassæ—(*Potassæ Fusa, Lapis Causticus.*)

Description and History.—This article is found in a state of round sticks, like the nitrate of silver, of a grayish white, sometimes reddish, with a smell like slaking lime, and a corrosive action on the mouth: exposed to the air, it attacks quickly the carbonic acid and moisture of the atmosphere, and is thus dissolved.

Properties.—Caustic potash is a powerful escharotic. It quickly decomposes the parts with which it is put in contact. It is principally used to remove tumours and to form issues; which are most conveniently made by placing on the skin a piece of linen spread with adhesive plaster, and perforated with a hole of the size of the proposed issue. The caustic, being held in a paper, is then applied to all the skin which is left bare by the perforation. This skin immediately becomes moist, and turns a dark colour, a burning sensation taking place in the part. If the caustic be good, the vitality of the skin will be destroyed in ten or fifteen minutes. It may then be washed with vinegar, to neutralize what caustic remains. The yeast poultice must now be used. The dead skin commonly sloughs off in about a week or two. Caustic potash differs from all other caustics, in exciting no pain or inflammation, except when first applied, and then only for a few moments.

Cream of Tartar, Crystals of Tartar, Supertartrate of Potash—(*Potassæ Supertartras.*)

Description and History.—The casks in which some kinds of wine are kept become gradually incrusted with a hard, saline substance, tinged with a colouring matter of the wine, which has long been known by the former name of *tartar*. When this saline substance is purified by solution, filtration, and crystallization, it constitutes the common cream of tartar.

Properties.—Cream of tartar is refrigerant, laxative, and diuretic. Small doses, in solution, form a cooling drink in febrile diseases, and excite the urinary secretion; large doses, in substance, occasion copious watery discharges from the bowels; hence it is very useful in dropsical cases, whether it operates by the kidneys or alimentary canal. When added to the resinous purgatives, it renders them better suited to inflammatory cases, as in the compound powder of jalap and mandrake. Combined with sulphur, it is a popular internal remedy in various diseases of the skin; also in piles.

Sal Æratus—(*Potassæ Bicarbonas—Bicarbonate of Potash.*)

Description and History.—This is a white alkaline salt, prepared by exposing pearl-ash in wooden boxes, perforated with holes, to the carbonic acid of a distiller's or brewer's fermenting vat for several months, until the alkali is nearly or quite neutralized.

Properties.—Sal æratus is a very valuable remedy. Its comparatively agreeable taste renders it one of the most pleasant and efficacious alkaline remedies, both as an anti-acid, diuretic, and for gravel. It enters into our *neutralizing cordial* or *mixture*, which we find so remarkably successful in every species of bowel complaints.

Castile Soap—(*Sapo Durus.*)

Description and History.—Castile soap is made from olive oil and soda; its marble appearance being given by the sulphate and red oxide of iron, which are mixed in at different stages of the process by which it is made. Good soap should have little odour, and a disagreeable alkaline taste. With water it forms an opaque milky solution; with alcohol, a nearly transparent one.

Properties.—Applied externally, it is detergent and cleansing. In pharmacy it is used for the formation of pills. It enters into our *anti-dyspeptic pills.* Excellent for the gravel and diseases of the urinary organs; dose, a table spoonful of the thin scrapings three times a day in milk; should be made without the iron.

Borax, Sub-borate of Soda—(*Sodæ Sub-boras.*)

Description and History.—It is found in large quantities in several lakes of Thibet and China, and in some of the mines of Peru. It is purified by melting it over the fire, then dissolving it while in powder, and permitting it to crystallize. It is white, semi-transparent, and of a styptic, urinous taste.

Properties.—It is used only externally, as an astringent and gargle in apthæ, excessive salivation, attended with ulcerations of the tongue and of the internal surface of the cheeks. It is remarkably cooling in its nature, and very readily allays heat and irritation. A solution of it forms the *cooling wash,* which is useful in opthalmia and other inflammation.

Sulphate of Quinine—(*Sulphas Quininæ.*)

Description and History.—This is a neutral saline substance, resulting from the action of sulphuric acid upon Quinia. It is found in commerce in very minute needles, or of a pearly white flexible, resembling fibrous and silky asbestos, united in radiated flakes, and of an excessively bitter taste. It is obtained by repeatedly boiling the yellow Peruvian bark in water, acidulated with sulphuric acid.

Properties.—The sulphate of quinine possesses the tonic, and principally the febrifuge, properties of the bark from which it is obtained, and is exhibited in the same cases. Where, from irritability of the stomach, the bark cannot be retained, the sulphate of quinine may be usefully employed. Much of this article is adulterated; some of it mixed with arsenic and serious effects have followed its use.

Flowers of Sulphur, Sublimed Sulphur—(*Sulphur Sublimatum.*)

Description and History.—This is a preparation of sulphur, obtained by subliming common brimstone in a large cast-iron vessel communicating with a chamber, which is used as a receiver. For medicinal use, it is then washed, in order to remove a small quantity of sulphuric acid, which is formed during the operation. It combines with almost all the simple metallic substances, and others, and forms, with them, sulphurets.

Properties.—Administered internally, in large doses, sulphur acts as a purgative; but taken in less quantity it increases animal heat and acceleration of the pulse; it promotes the secretion of the skin and kidneys. Its exhibition for a length of time is capable of producing very serious consequences; such as hæmorrhage, agitation, fever, &c. It is administered

internally, and applied externally in the treatment of piles, itch, and some other cutaneous diseases. It enters into our preparation for the *intermittent fever.* Cream of sulphur is similar.

Salts of Hartshorn, Sal Cornu Cervi, Subcarbonate of Ammonia—(*Ammoniæ Carbonas.*)

Properties.—It is nervine and stimulating; of importance as a general stimulus in the advanced stages of typhus fever. The stimulus raised by carbonate of ammonia more resembles healthy action than any other article generally made use of. The following is an excellent prescription: Take carbonate of ammonia, three scruples: gum Arabic and loaf sugar, two drachms; mint water, distilled, or tea, half a pint; mix: take a table-spoonful or two every hour, according to circumstances.

"Dr. Fitch, of North Guilford, Connecticut, prescribes the carbonate as follows: Carbonate of ammonia, finely pulverized, fifty grains; pure honey, four table-spoonsful; mix: thoroughly beat up together, until some effervescence takes place. Dose, a tea-spoonful once in three or four hours, or oftener, according to circumstances. This prescription I have proved to be very superior in low excitement."—*Walcot.*

"Not long before his death, the late Dr Khun," says a writer, "who was one of the most sagacious and discriminating practitioners of this country, told me, with some emphasis, that after an experience of nearly half a century, if he was called upon to say with what remedy he had done the most good, he should, without hesitation, name the carbonate of ammonia, aided by wine whey."

White Vitriol—(*Sulphate of Zinc.*)

White vitriol is found in water, but in an impure state and in small quantities. It is made by the application of diluted sulphuric acid upon *zinc;* then suffering the solution to crystallize.

Properties.—It is used as an escharotic, in the form of powder, or combined with other articles. Added to water, it makes a cooling wash and is employed in inflammation of the eyes, and occasionally in the form of injection.

Native Sulphur—(*Sulphur Vivum.*)

This article is common sulphur, as found in its native state. It is a dark brown powder, having no resemblance to sulphur, as regards appearance or smell.

Properties.—I have found sulphur vivum to be a specific for the itch. It soon cures it, without producing any disagreeable symptoms or smell, or without the necessity of even changing the clothes. It should be pulverized, and mixed with fresh butter or hog's lard, and the part affected bathed or rubbed with it as often as there is any itching. This powder appears to be the basis of some of those itch ointments which are said to cure the disease in a few hours. This ointment is also useful in salt rheum, herpetic affections, &c.

Veratria.—A salt procured from white hellebore; powerfully narcotic. Dissolved in alchohol, or made into an ointment with lard, and rubbed on the parts affected, relieves acute pain very speedily; as neuralgia, &c.

Sal Soda.—Superior to ley for bathing the surface, more cleansing, and does not excoriate the skin; can be carried in a vial, and giving out as wanted.

Charcoal, (made of hickory or maple wood.) This is highly recommended, by Mr. Jonathan Chase, for bilious complaints, dyspepsia, acid stomach, foul stomach, piles &c.; it is very purifying: dose, three teaspoonsful three times a day, before each meal, till cured; to be taken in milk or any other vehicle. It purges. This is a very safe, cheap, and useful medicine. As an evidence of its purifying properties, it will restore tainted meat in a short time. Mr. Chase states that he has found more benefit from charcoal than all other medicines.

Water is one of the most valuable articles in the *materia medica*. Internally, it is diluent, sweating, cooling, and, if necessary, may be given warm to puke. It keeps the blood and other fluids in a right state to circulate. Externally, is very valuable to cleanse, cool, or strengthen the system, in the form of bathing; and given in the form of an injection, will purge. It has sometimes appeared to me that I could fulfil almost every indication by the use of water: vomit, purge, sweat, strengthen, and thus cure all fevers, &c. But we must not simplify too much, lest we destroy our own business *too soon*.

Yeast makes a very valuable poultice for inflammation and mortification, to be mixed with a little elm bark and tepid water. It is very good for dysentery, and fevers attended with putrid symptoms: dose, a wine glassful, mixed with milk and loaf sugar.

Gall, from the gall-bladder of an animal, is highly extolled for some complaints. Dr. Prince, of Lebtz, Island of Jamaica, informs me that he uses it in most complaints with signal benefit; in stomach, liver diseases, &c. He mixes it with mandrake, forms it into pills, and gives three or four once or twice a day. He says it acts upon the human system as oil does upon a watch, which makes it *run easy*.

Red Oxide and Carbonate of Iron are mild preparations of iron, similar to the rust. They possess tonic properties, and are useful in nervous diseases. Dose, from half to a tea-spoonful three or four times a day, in molasses.

Common Salt—(*Muriate of Soda.*) This salt possesses great medicinal as well as antiseptic properties. Dissolved in best brandy, it is excellent for sore throat and all kinds of ulcers; also to disperse scrofulous and other swellings, fistula, tumours, wens, &c. A tea-spoonful taken frequently, is excellent to stop bleeding of any kind; and, applied externally, to stop it from wounds. Good also for fevers, dyspepsia, &c.

Dr. G. W. Bond, a botanic physician of this city, prescribed salt, mixed with vinegar and hot water with great success in the cholera, and recommends it for all diseases, particularly of the stomach; as follows: Common fine salt, a tea-spoonful; two table-spoonsful of pure cider vinegar; boiling water, half a pint; give the whole as soon and as hot as possible. In half an hour give an injection of the same, about a pint, sweetened with molasses. Repeat as occasion requires. For children, sweeten with loaf sugar, and give often according to their age, from a tea spoonful to a table spoonful.

Scrofulous Tumours, Wens, and Fistula.—Take the yolks of eggs, beat up, and add as much pure salt as will dissolve; apply every twelve hours.

PART SEVENTH.

PHARMACY AND DISPENSATORY; OR COMPOUNDS.

PHARMACY may be defined that branch of medical science which teaches the art of preparing and combining remedies for the treatment of diseases.

It is the object and province of materia medica to provide or furnish articles or ingredients for the prevention and cure of diseases, and to treat of their properties and virtues. But it is the province of pharmacy to show how these articles are prepared and compounded for administration. It is the design of therapeutics to show the effects on the human body, and their application to the cure of diseases.

We wish every one to be deeply impressed with this sacred maxim in physic, that the virtue of a medicine consists wholly in the skill of its application; and that the best and most salutary medicine, if injudiciously administered, may prove injurious.

Table of Doses.—As a general rule, the following table of doses will be quite sufficient; but much must always be left to the judgment of the prescriber, who alone can judge of the constitution and state of the case:

A person from fourteen to twenty years of age may take two-thirds of a dose intended for an adult; from nine to fourteen, one-half; from six to nine, one-third; from four to six, one-fourth; from two to four, one-sixth; from one to two, one-tenth; below one year, a twelfth. A woman generally should take a little less than a man.

Apothecaries' Weight.—A pound contains twelve ounces; an ounce, eight drachms; a drachm, three scruples; a scruple, twenty grains.

Measure for Liquids.—A pint contains sixteen ounces; an ounce, eight drachms; a table-spoonful is about half an ounce; a tea-spoonful is one-fourth of a table-spoonful; sixty drops make one tea-spoonful.

Some substances are administered in their natural state; others previously undergo various preparations. Every article used in medicine should be collected in the right season, and be free as possible from impurities.

The articles of the materia medica, in their natural state, are generally unfit for medicinal use; and their remedial powers are often increased by combining two or more together; hence the necessity of preparation and composition.

Our different medicinal preparations are arranged under the following heads:

1. Balsams.
2. Bitters.
3. Caustics.
4. Drops.
5. Decoctions.
6. Extracts.
7. Eye-waters.
8. Fomentations.
9. Gargles.
10. Infusions.
11. Injections.
12. Liniments.
13. Liquids.
14. Mucilages.
15. Oils.
16. Ointments.
17. Plasters.
18. Poultices.
19. Pills.
20. Powders.
21. Salves.
22. Syrups.
23. Spirits.
24. Sinapisms.
25. Tinctures.
26. Essences.
27. Troches or Suppositories.
28. Washes.
29. Mixtures.
30. Electuaries.

BALSAMS.

By balsams is generally understood the concrete or inspissated juice of vegetables; such as balsam of fir, copaiba, &c. But we make use of the term here to designate certain artificial preparations, which, as regards qualities or consistence, resembling balsams.

Pulmonic or Pulmonary Balsam.

Take of	Spikenard root,	1 ounce.
	Hoarhound tops,	do.
	Elecampane root,	do.
	Cumfrey root,	do.
	Blood-root,	do.

Add a suitable quantity of water; boil, and pour off the infusion repeatedly, until the strength is all extracted; then strain: add to the same one gill of spirits, press and strain, reduce the whole of the liquid down to about one quart bottle full; then add two pounds of white sugar, and boil a few minutes, to form a syrup. Let the whole stand twenty-four hours, in order that it may settle—then bottle for use.

Dose.—A wine-glassful three or four times a day.

Use.—This preparation is highly useful in the treatment of *pulmonary affections* and *coughs* of long standing. It is admirably calculated to relieve that constricted state of the lungs which is often met with in consumption, and to assist expectoration. It does not increase the circulation, and is, therefore, a safe remedy in any stage of consumption.

BITTERS.

By this class of medicines is understood certain liquids, as wine or spirits, impregnated with those vegetables which contain the greatest quantity of the bitter principle; such as gentian, centaury, &c. They are used to impart tone to the stomach.

Wine Bitters.

Take of	Golden seal,	1 drachm.
	White wood bark,	1 do.
	Indian hemp,	4 do.
	Cayenne pepper,	½ do

Bruise all, and add one quart of wine.

Dose.—From a table-spoonful to a wine-glassful three times a day.

Use.—This forms a useful tonic and pleasant bitter. It is administered in dyspepsia and other complaints, where tonics are indicated.

Compound Bitters.

Take of	Tamarach bark,	6 pounds.
	Prickly-ash bark,	4 do.
	Wild cherry bark,	3 do.
	Seneca snake-root,	3 do.
	Tansy,	1 do
	Socotrine aloes,	½ do.

Let these articles be pulverized and mixed; then take of mixture one quarter of a pound, add three pints of boiling water, two quarts of Holland gin, and one pint of molasses: let it stand a week.

Dose.—Half a wine-glassful morning, noon, and evening.

Use.—This forms an excellent tonic for dyspepsia, obstruction of the menses, and other diseases, where tonics are required. It constitutes old Dr. Bones' bitters.

Restorative Wine Bitters.

Take of	Comfrey root,	1 once.
	Solomon's seal,	1 do.
	Spikenard root,	1 do.
	Colombo root,	½ do.
	Gentian root,	½ do.
	Camomile flowers,	½ do.

Bruise all together, cover with boiling water, and then add four quarts of wine or metheglin.

Dose.—Half a wine glassful three or four times a day.

Use.—This is a very useful *tonic* in all cases of debility, particularly that peculiar to females. It is *pectoral* and *corroborant*. It is valuable in fluor albus and incipient consumption. Seldom or never given without benefit.

CAUSTICS OR ESCHAROTICS.

Caustics and escharotics are those substances which, when applied to fungous flesh or the skin, disorganize the same. Their operation, however, differs very much, according to the agents employed; some acting very mildly, others very severely. They are derived both from the mineral and vegetable kingdom. The latter are always to be preferred, when they answer the indication required.

Vegetable Caustic.

Make a strong ley of hickory or oak ashes, put it into an iron kettle, and evaporate till dry; pulverize, and preserve it in closed vessels.

Use.—This caustic is highly useful in the treatment of fistulas; also in indolent ulcers of every character. It removes fungous flesh without exciting any inflammation, and acts but little, except on spongy or soft flesh. It is useful in cancers, and in every case where a caustic is required.

Extract of Blood-root.

This article, applied, on lint, to some species of ulcers, proves very beneficial

White Vitriol, Mineral Caustic.

White vitriol, pulverized, makes an excellent caustic, particularly to remove fungous or "proud flesh." A few grains to be occasionally applied.

DROPS.

Drops include medicines which, from their strength or active properties, require to be given in very minute doses; the dose being usually graduated by the number to be administered.

Great care or caution is necessary in giving this class of medicine, as mistakes are more liable to be made in this than in some other forms.

Vials containing drops should always be kept corked, that the strength may not be increased by evaporation, or the virtues of them lost.

Diuretic Drops.

Take of	Sweet spirits of nitre,	2 ounces.
	Balsam of copaiba,	1 do.
	Oil of almonds,	2 do.
	Spirits of turpentine,	1 do.

Mix these together, and add one scruple of camphor.

Dose.—A small tea-spoonful, given in mucilage of gum Arabic or herb tea, three or four times a day.

Use.—The drops are successfully administered in cases of scalding of urine, whether arising from syphilitic or other complaints. In inflammation of the kidneys they give prompt relief.

Black Drop.

The black drop was originally prepared, upward of one hundred years ago, by Ewd. Toustall, a practitioner, of the Society of Friends, in England; the recipe passed into the hands of a relative, and was finally published.

Take of Opium,	½	pound.
Vinegar,	3	pints.
Nutmeg,	1½	ounces.
Saffron,	½	do.

Boil a while, and then add a quarter of a pound of loaf sugar and two table-spoonsful of yeast; set the whole in a warm place for four or five weeks; decant, and bottle for use.

Dose.—From fifteen to fifty drops.

Use.—This, perhaps, is the best form in which opium can be administered as an anodyne. It is given in all cases when an anodyne is indicated.

Cough Drops.

Take Oil of anise,	½	drachm.
Oil of almonds,	½	do.
Balsam of fir,	½	do.
Tincture of balsam tolu,	½	do
Wine,	½	do

Mix.

Dose.—Thirty drops three or four times a day.

Use.—These drops should be given in a little mucilage or tea. They assist expectoration in tickling coughs, and afford great relief.

Anti-emetic Drops.

Take Salt,	2	ounces
Capsicum,	1	do.
Vinegar,	1	quart.

Mix.

Dose.—A table-spoonful whenever there is great nausea or vomiting. A writer says that this compound is the best remedy to stop vomiting that he had ever used.

Carminative Drops.

Take Angelica,	4	ounces.
Wild valerian,	2	do
Calamus,	½	do.
Anise, dill, and fennel seeds, (each)	1	do,
Catnip blows or leaves, and motherwort, each a large handful;		
Pleurisy root,	4	do.

Infuse the whole in two quarts of brandy or good common spirits, and digest in a moderate heat for twenty-four hours; then press out and stain the liquid, and add to it half a pound of loaf sugar. When settled, bottle it for use.

Dose.—For children, from ten to sixty drops, according to the age; for adults, from one to four tea-spoonsful in a cup of warm tea. It may be repeated once in four or six hours.

Use.—It eases pain, creates a moderate perspiration, and produces re-

freshing sleep; is good for restless children, removes flatulency and wind colic, and is useful in hysteric and nervous affections, female debility, &c.

Toothache Drops.

Take of Oil of sassafras, ½ ounce.
Oil of cloves, ¼ do.
Mix: dip a piece of lint or cotton in the drops, and put it in the tooth.

DECOCTIONS.

Decoctions are certain preparations of medicines and drinks, made by boiling substances in water for a considerable time. Where we wish to administer the virtues of any plant in a small volume in the form of drink, decoctions are very useful. Some ingredients, however, lose a part of their efficacy by long boiling, and are given best in some other form.

Vegetables designed for decoction should be cut into slices, or bruised into a coarse powder, that their strength may be more easily extracted.

Diuretic Decoction.

Take of Queen of the meadow, 2 ounces.
Milk-weed, 2 do
Juniper berries, 2 do.
Dwarf elder, 2 do.
Spearmint 2 do.
Wild carrot seeds, 2 do
Put all into a mortar, and bruise: make a strong decoction.

Dose.—Half a pint, to be taken often through the day.

Use.—This decoction is very useful in *gravel, dropsy, &c.* It is strongly diuretic.

Rheumatic Decoction.

Take of Virginia snake-root 1 drachm
White pine bark, 2 do.
Burdock seeds, 2 do.
Prickly ash bark, 2 do.
Pulverize all together, and add half a gallon of water; boil to three pints.

Dose.—Half a pint two or three times a day.

Use.—This forms an excellent decoction in chronic rheumatism.

Urinary Decoction.

Take of Marshmallows, 3 ounces.
Queen of the meadow, 3 do.
Add four quarts of water, and boil to one; then add two ounces of gum Arabic and half an ounce of pulverized nitre.

Dose.— A tea-cupful four or five times a day.

Use.—This is an excellent remedy in nephritis or inflammation of the kidney. It is also useful in the treatment of inflammation of the bladder, in hæmaturia or bloody urine, and other urinary diseases. It is a demulcent diuretic.

For the Gravel.

Take of the root of Jacob's ladder, 2 ounces
Make into a decoction; to be taken as a common drink. Said to be infallible for the gravel.

EXTRACTS.

Extracts are the products of vegetables, produced by boiling or evapo-

rating to a proper consistence. There are two kinds: spirituous and watery. In the former, spirits are used to extract the strength of the article of which the extract is made; in the latter, water is made use of. In preparing them, it is necessary often to add fresh water, if water be used, until all the strength is extracted; then strain and slowly evaporate until the liquid is brought to the consistence of thick molasses; after which let it be placed in earthen jars, and tightly covered with a bladder or skin, to prevent moulding.

This is an excellent form to administer many kinds of medicinal plants, as the quantity to be given is very small.

The inspissated juice of vegetables is the best method to obtain their virtues in a concentrated form.

The extract of jalap, dandelion, blood-root, henbane, gentian, stramonium, butternut, &c., are all obtained in a similar manner—the roots or plants may be bruised, and spirits added; then pressed out, and placed in the sun till evaporated.

EYE-WATERS.

Eye-waters or collyriums are prepared either from mineral or vegetable substances, and which are usually added to spirits or water, and applied to the eyes in the form of wash. They should first be applied very weak, and the strength gradually increased.

Spirituous Eye-water.

Take of Fourth-proof brandy, ... ½ pint.
Rain water, ... ½ do.
Camphor, ... ½ drachm.

Use.—This eye-water is used in chronic opthalmia, or inflammation of the eyes.

Mucilaginous or Laurus Eye-water.

Take of pith of sassafras, ... 1 drachm.

Add it to a suitable quantity of rose water, which makes an excellent mucilaginous and cooling wash.

Use.—It will be found beneficial in the treatment of opthalmia, or inflammation of the eyes, during the acute stages.

Dr. Lobstein's Eye-water.

Take of White vitriol, ... 1 drachm.
Common table salt, fine, ... 3 do.
Common water, ... 1 pint.

Boil the water for a quarter of an hour; then put the two salts in a new earthen pot, and pour the boiling water over it; let it simmer for fifteen minutes; when cold, strain it through filtering paper.

Use.—For inflammations of the eye.

FOMENTATIONS.

Fomentations are usually composed of several kinds of bitter herbs, and are very useful to relieve pain and inflammation, by taking off tension and spasm; or to brace and restore the tone and vigour of those parts to which they are applied.

The first of these intentions may generally be answered by warm fomentations; and the second, by those that are cold. They should often be renewed. This class of medicine is very valuable in a great many complaints.

Hop Fomentation.

Take two handsful of hops and one pint of vinegar; heat the latter, and pour it on the hops: boil till the strength is extracted.

In cases of sore throat, hoarseness, or soreness of the breast, severe pain the abdomen, colic, dysentery, &c., this fomentation will give ease and allay irritation. It may be applied at bed-time, and kept on all night; or any time in the day, if necessary. It is usually best to apply warm, and often to renew.

Common Fomentation.

Take Hops,	3	ounces.
Tansy,	3	do.
Wormwood,	3	do.
Hoarhound,	3	do.
Catnip,	3	do.

Or a handful of each. Make of these articles a strong decoction, by boiling in equal parts of vinegar and water.

Use.—This will be found very efficacious in relieving pain and inflammation, resulting from contusions, sprains, dislocations, and other causes.

It may also be usefully employed in inflammation of the bowels and of the stomach; in short, in almost every species of inflammation it will be found very useful.

Stimulating Fomentation.

Take Red pepper,	2	ounces.
Bruised mustard seeds,	2	do.
Alcohol or spirits,	2	quarts.

Simmer a few minutes.

Use.—This is used as an external application in paralysis or palsy.

Poppy Fomentation.

Take of white poppy heads or the flowers a suitable quantity; add equal quantities of vinegar and water, and simmer a few minutes.

Use.—This is an excellent anodyne fomentation, used in painful affections.

Ophthalmic Fomentation.

Take of stramonium leaves, and simmer them in water.

Use.—In severe or acute ophthalmia, or inflammation of the eyes, this fomentation is sometimes used with good effect.

Mint Fomentation.

Take of fresh spearmint a proper quantity; let it be bruised, add spirits, and simmer.

Use.—In cases of great irritability of the stomach, attended with frequent vomiting, this fomentation, applied to the pit of it, will often relieve when other means fail.

GARGLES.

Gargles, in many complaints, are very useful, particularly in the apthæ, quinsy, fevers, &c. By this class of medicines, we understand

certain infusions, decoctions, or liquids, suitable or designed for washing the mouth and throat, which, by their stimulating or detergent properties, become efficacious.

Adults can generally gargle their mouth or throat with little difficulty; but infants and children require an assistant to apply them, which is done best by tying a little piece of linen to a probe or stick, dipping it in the liquid, and often applying it. They should never be made very stimulating, except in severe cases.

Stimulating Gargle.

Take of sumach berries and golden seal a sufficient quantity; make a strong decoction, strain, and add one drachm of pulverized alum to every pint of the decoction.

Use.—This gargle is used frequently in ulcerated sore throat of long standing.

Astringent Gargle.

Take of cohosh a proper quantity, and make a strong decoction.

Use.—This gargle is used in quinsy.

Antiphlogistic Gargle.

Take of Sage, ... 1 ounce.
Hyssop, ... 1 do.

Pour on one quart of boiling water, and let it stand half an hour; then strain, and add one drachm of fine borax.

Use.—This gargle is usefully employed in apthæ, and in quinsy or sore throat, particularly where there is accute inflammation.

Yeast Gargle.

Take yeast, a wine glassful; milk, a gill; sweeten with molasses. Excellent for sore throat.

Gargle for Putrid Sore Throat.

Take of the Bark of upland sumach,
High blackberry,
Common white elm bark
White oak bark,
Small blacksnake-root,
Nanny berry bark,

Of each a handful, except the snake-root, which must be half the quantity: make a strong decoction, add a piece of alum, and sweeten well with honey; then bottle for use Apply often to the sores with a rag. It may at first irritate a little, but then cures. Cured all in the revolutionary war, when all other means were of no avail and many cases had previously proved fatal.

INFUSIONS.

Infusions, or, as they are usually called, teas, are a very common and good method of administering the virtues of various medical agents. It probably is the most natural, if not ancient, method of preparing medicine. A two-fold benefit is derived from infusions: 1st, the medicinal properties of the article made use of; 2dly, the heat and diluent properties of the water.

An excellent method to make teas or infusions is, to put the plant or root into a tea-pot, pour on boiling water, and let it stand a short time by the side of the fire. In this way the infusion is readily made very clear.

For infusions generally, put a handful of the herb into a tea-pot, and add a quart of boiling water; when cool, drink freely. All kinds are prepared in this manner, except otherwise directed; such as hops, elecampane, elder, fennel seed, flag-root or calamus, boneset, linseed, slippery elm, balm, catnip, hyssop, spearmint, peppermint, tansy, pennyroyal, dandelion, sassafras, snake-root, &c.

Composition or Bitter Tea.

Take of	Snake-root,	one handful.
	Gold thread,	do.
	Centaury,	do.
	Wormwood,	do.
	Tansy,	do.
	Boneset,	do.
	Hoarhound,	do.

Mix all well together

Dose.—To a large table-spoonful pour one pint of boiling water; when cold, drink a wine glassful four times a day.

Use.—For weak lungs, coughs, pain in the breast, loss of appetite, dyspepsia, &c.

Anthelmintic Infusion or Worm Powder.

Take of	Carolina pink,	½ ounce.
	Senna,	½ do.
	Manna,	½ do.

Add to these one quart of boiling water, and let it stand six hours; strain, and sweeten with loaf sugar or honey, and add a little milk.

Dose.—Half a tea-cupful three or four times a day for a child six years old; or sufficient to purge.

Use.—It is an excellent medicine to expel worms.

Compound Infusion of Senna.

Take of	Senna,	½ ounce.
	Manna,	½ do.
	Cream of Tartar,	½ do.
	Fennel seed, bruised,	1 tea-spoonful

Add one pint of boiling water to the senna and manna, strain, add the cream of tartar, and sweeten.

Dose.—A wine glassful every hour till it purges.

Use.—A cleansing and cooling purgative; useful in fevers and inflammatory diseases.

INJECTIONS OR CLYSTERS.

Injections or clysters are certain liquids thrown into the rectum by mechanical means. Their operation or effect depends upon the ingredients used: some are emollient; others are stimulant, anodyne, purgative, anti-spasmodic, &c. Those generally used by practitioners are composed of starch; and so inefficiently are they used, or directed to be used, that little or no benefit is derived from them.

A bladder and pipe is generally employed to administer injections; but the liquid cannot be effectually introduced by this instrument. A large syringe should always be used for adults, and a small one for infants and children. This enables the practitioner or nurse, one of whom should always perform this simple, but valuable, operation, to throw up the injection to such an extent or distance as will be exceedingly efficacious. To prove

effectual, a large quantity should always be given. Few are aware of the great benefit and efficacy of injections or clysters. They often prove a sovereign remedy for diseases which nothing else will relieve; hence every family should possess a syringe, and a knowledge of its use.

Sometimes the stomach is in such a state that medicine cannot be given to act upon the bowels: in this case the syringe is very useful; also in strangulated or incarcerated hernia or rupture, bilious colic, dysentery, cholera morbus, and bowel complaints generally.

Common Injection.

Take of Sweet milk,	1 pint.
Mucilage of slippery elm,	1 do.
Olive Oil,	1 gill.
Molasses,	½ pint.
Sal æratus,	1 tea-spoonful.

Mix.

Use.—This forms an injection of much value, and may be used in almost every case where one is indicated. It is often used with admirable effects in dysentery and diarrhœa. Sometimes, when there is great pain in the lower intestines, it will do better if a drachm of laudanum is added to each injection; and it will not fail of relieving the griping pain occasioned by the disease. It should be used with a large sized French syringe.

Soap-suds Injection.

Take of soap-suds, strong, a sufficient quantity; inject it about blood-warm.

Use.—This is an injection which may always be conveniently procured. It is mild and may be administered when a more stimulating injection would be hurtful. It is very useful in habitual costiveness, when purgatives are ineffectual.

Stimulating Injection.

Take of Lobelia,	1 drachm.
Inner bark of large hemlock,	½ ounce.
Red pepper,	1 drachm.

Make a tea or infusion, sweeten, and introduce from half a pint to a pint.

Use.—This injection is occasionally used in very obstinate cases of costiveness, bilious and painters' cholic, and strangulated or incarcerated hernia.

Tobacco Injection.

Take of Tobacco,	1 drachm.
Tepid water,	1 pint.

Infuse for twenty or thirty minutes.

Use.—This injection is sometimes used in the treatment of incarcerated hernia, with a view to its relaxing properties. It should be employed with caution, as it has sometimes produced alarming symptoms. It is also used to destroy worms from the rectum. Salt and water injection is also very good.

LINIMENTS.

Liniments are preparations employed in frictions or embrocations on the skin. They are usually composed of oily, spirituous, and gummy or saponaceous substances; as some of the essential oils, alcohol, soap camphor, &c.

They are used externally, for rheumatism, quinsy, and other painful affections. The benefit is derived from their counter-irritant effects.

Soap or Common Liniments.

Take of Castile soap, ... 1 ounce.
Oil of sassafras, ... 1 do.
Camphor, ... 1 do.
Spirits of hartshorn, ... 1 do.
Alcohol, ... 1 do.

Mix.

Use.—This forms an excellent liniment in diseases of the throat and tonsils.

Hemlock Liniment.

Take of Oil of hemlock, ... 1 ounce.
Gum camphor, ... ½ do.
Gum opium, ... ½ do.

Add one quart of alcohol: mix.

Use.—This forms an extraordinary combination for all cases of pain, particularly of an inflammatory character, where heating liniments prove too stimulating. I have scarcely ever found it fail of affording immediate relief in inflammatory rheumatism, quinsy, white swelling, inflamed breasts, &c. Bathe frequently.

LIQUIDS.

Liquids include such medicines as are made from various menstruums or solvents, such as spirits, wine, water, &c. They are usually compound preparations.

Rheumatic Wine Tincture.

Take of White turpentine, ... 4 ounces.
Inspissated juice of pokeberries, ... 4 do.
Malaga wine, or metheglin, ... 3 gallons.

Let these articles be mixed, and stand one week; then filter, and bottle.

Dose.—Half a wine glassful two or three times a day.

Use.—This is an excellent preparation for chronic rheumatism.

Anti-pyrosis Liquid.

Take of Elixir salutis, ... 1 pound.
Tincture of balsam tolu, ... 1 ounce.

Mix.

Dose.—A table-spoonful every morning or evening.

Use.—This liquid will be found efficacious in removing the troublesome symptoms of water-brash or pyrosis. It may be taken, mixed in water, every night, at the time of going to bed.

Mint, or Spirits of Mint, Liquid.

Take of spearmint, green, bruise, and add a sufficient quantity to saturate a quart of Holland gin.

Use.—This preparation of mint will be found exceedingly useful in the treatment of *strangury* and *retention of urine*, arising from stricture in the urethra, and diseases of the prostate gland. It has proved successful when other means have failed.

Dose.—The dose must be regulated according to the patient's habits. Some will require half, others a gill at a time, and repeated every thirty

minutes. The patient should take it till it produces relief. This liquid has also been used with the best effects in the treatment of hæmorrhoids, particularly in a state of inflammation; to be applied on a little cotton. In cases where the green mint cannot be procured, the dry may be used, although it may not be so good. This liquid may also be used, both externally and internally, in cases of severe vomiting.

Rheumatic Liquid.

Take of Sassafras oil,	2 ounces
Hemlock oil,	1 ounce.
Red cedar oil,	1 do
Oil of turpentine,	1 do.
Gum camphor,	1 do.
Capsicum,	1 do.

Mix: add two quarts of alcohol.

Use.—This is a very valuable compound for rheumatism, and every kind of pain, ague in the face and jaws, neuralgia, spinal irritation, &c. Bathe the parts affected for a few minutes with the hand or flannel; repeat when painful: if too strong, dilute with a little water. The addition of an ounce or two of opium would no doubt make it still better.

Stimuating Liquid or Drops.

Take of Red pepper,	2 ounces
Common spirits or brandy,	2 quarts.

Let it stand a few days; or, if wanted immediately, simmer a few minutes.

Use.—This liquid is used externally, in rheumatism, paralysis, "soreness of the flesh," ague in the face and breast, pain of the breast, and, indeed, of any and every other organ. It is exceedingly valuable, seldom or never disappointing the practitioner in relieving pain. Good internally, to relieve pain, in half tea-spoonful doses.

Tincture of Ipecacuanha, or Wine of Ipecacuanha.

Take of the Root of Ipecacuanha, in powder,	1 ounce
Malaga wine,	16 do.

Macerate for seven days, and filtrate.

Use.—This makes a valuable emetic for children.

Dose.—The dose is one ounce for adults; children two years of age, one tea-spoonful every ten or fifteen minutes till it pukes them.

MUCILAGES.

Mucilages are soft, bland substances, made by dissolving different kinds of gum, or the roots, leaves, or other parts which abound with mucilage. Mucilaginous drinks are useful in diseases of the bowels, urinary organs, &c. Also to cover any acrid matter, so as to prevent its irritating the parts over which it passes.

Mucilage of Gum Arabic.

Take of Gum Arabic,	4 ounces
Boiling water,	8 do.

Rub the gum with the water gradually, until it forms a mucilage; then strain.

Use.—Mucilage of gum Arabic is used in pharmacy, to suspend in water substances insoluble in that liquid, to diffuse oils in water, and for similar purposes. It is sometimes employed in the formation of pills. It is very useful in heat and scalding of the water.

Dose.—Half a wine glassful three or four times a day.

Mucilage of Slippery Elm.

Take of Slippery elm bark, ... 1 table-spoonful
Boiling water, ... 1 quart.

Let it stand an hour. It is employed in inflammation of the stomach and other diseases. It is useful in bowel complaints generally.

OILS.

Oils are of various kinds, and used either singly or combined. They are used generally, when applied externally, for rheumatism and other painful affections

Anthelmintic or Worm Oil.

Take of Castor oil, ... 1 ounce.
Worm-seed oil, ... 1 drachm
Anise oil, ... 1 do
Tincture of myrrh, ... 1 do.

Mix, and warm to the temperature of milk.

Dose.—For an adult, a large tea-spoonful three or four times a day for three days. For children, give in proportion to their age; on the third day give a portion of mandrake physic. This preparation is highly recommended by a person of competent knowledge and skill.

Since writing the above, another physician, Dr. Davis, states that a similar preparation is very excellent.

Oil of Red Pepper.

This oil may be obtained by adding the pepper, pulverized, to æther, and letting it evaporate. The oil only remains.

Use.—This oil is very efficacious in white swellings, lumbago, sciatica, rickets, ague in the face and breast, quinsy, pain in the side and breast, pleurisy, and for painful affections generally. It is powerful, and should be applied very sparingly. The essence of it is excellent for pain and cramp in the breast and stomach.

OINTMENTS.

Ointments are a class of medicines which contain the properties of certain vegetables designed for external use. Their consistence is softer than that of salves or plasters, but the heat of the body is sufficient to melt them. Lard and butter, or oil and wax, are principally used to make them.

According to the direction given in common dispensatories, the properties of vegetables are not communicated to either of these substances through the medium of water alone, particularly if they are dry; but, by simmering them in spirits, the desired union is obtained.

Stramonium Ointment.

Take of stramonium leaves a proper quantity, while green; bruise them to a pulp, and put them into an earthen vessel; then cover with spirits and lard, and simmer the leaves until they become crisped; strain, and add of Venice turpentine half a pound to every ten pounds of the ointment.

Use.—This forms an excellent application for *scalds*, *burns*, and *cutaneous eruptions*, attended with inflammation. It may be applied occasionally, with the finger or with a piece of linen.

Green Ointment.

Take of Tansy,
Wormwood,
Hoarhound,
Catnip,
Hops,

Of each an equal quantity. Bruise them, put the whole into a kettle, cover over with spirits and lard, and let it stand two weeks; then simmer awhile, and strain. Add one pound of common turpentine to every ten pounds of the ointment.

Use.—This ointment is very cooling, resolvent, relaxing, and emollient. It is very useful in sprains, contusions, swellings, dislocations contracted sinews, &c.

Discutient Ointment.

Take of Cicuta leaves,	½ pound.
Yellow dock,	1 do.
Poke-root,	1 do.
Stramonium,	1 do.
Deadly nightshade,	1 do.
Bitter-sweet, bark of root,	½ do

Bruise all except the stalks, which ought to be left out; cover with cider, brandy, or any kind of spirits, and let it stand for twenty-four hours; then add sufficient lard, when melted, to cover the whole, and simmer slowly, till all the virtue of the articles has been communicated to the lard. Then strain and press. After which add half a pound of Venice turpentine.

Use.—This ointment is exceedingly valuable in discussing scrofulous, indolent, and glandular tumours and swellings.

It should be rubbed on the parts about thirty minutes each time that it is applied; after which let a piece of cotton be applied and secured by a proper bandage.

Itch Ointment.

Take of Sulpher vivum, fine,	1 ounce.
Venice turpentine,	1 do.
Lard,	½ pound.

Melt the lard and turpentine; then add the sulphur, and stir till it is cold: let it be applied two or three times a day.

Use.—It soon cures the complaint, without the necessity of changing the clothes.

Celandine Ointment.

Take the herb or plant, bruise, cover with any kind of spirits, and simmer awhile; then add fresh butter, and let the whole remain over the fire until the leaves are *crisped:* strain.

Use.—This ointment is useful in the piles and in cutaneous eruptions.

Brown Ointment, Opthalmic Ointment, Eye-salve, or Eye-balsam.

Take of Fresh butter,	3 ounces.
White wax,	½ do.
Red precipitate,	2½ drachms.
Prepared tutty,	1 do.
Camphor, dissolved in olive oil,	1 do.

Melt the first two articles, and, when nearly cold, stir in the others, finely pulverized. This ointment, for eruptions generally, sore eyes, &c., is superior to all others. It almost invariably benefits in every case.

For the Salt Rheum.

Take of narrow dock-roots, scabious, and swamp sassafras, equal parts; boil down strong, and add one pound of lard; simmer down to an ointment. Rub the parts affected three or four times a day

Marsh-mallow Ointment.

Take marsh-mallow tops and roots, add spirits, bruise, and simmer; then cover the plant with fresh butter; simmer till the strength is extracted.

Use.—This forms a very cooling ointment, and is efficacious in all kinds of eruptions attended with inflammation, such as erysipelas, (*St. Anthony's fire.*) sore nipples, cutaneous affections, particularly in children, in the face and round the ears.

PLASTERS

Plasters, like ointments, have generally for their base an oily or fatty substance; but they are more solid and tough, and adhere to the parts without melting.

Some are composed of wax, resin, and oils; others are the product of a chemical combination between oleaginous substances and the metallic oxides, with which they are combined. Some are spread upon leather, others upon linen.

Ferris's Black Plaster.

Take of white oak bark a proper quantity, bruise, add urine sufficient to cover it, let it stand two or three days, and then boil it till it becomes of the consistence of honey; add to every five pounds one pound of honey and one pound of strained turpentine gum: add two drachms of white vitriol, pulverized, to every ounce, when it is intended to act as an escharotic.

Use.—This forms a very valuable plaster for cancers, ulcers, or white swelling in a state of ulceration, and for the removal of spongy or fungous flesh. It excites but little pain or inflammation. It should be spread on linen or a soft piece of leather.

Strengthening Plaster.

Take of hemlock gum, add one-fourth the quantity of white turpentine, dissolve and strain it.

Use.—This forms an excellent strengthening and stimulating plaster. It is employed in chronic rheumatism, weakness in the back, &c.

Blistering Plaster.

Take of Mutton suet,
Beeswax,
White resin,

Of each an equal part. Melt these articles together, and add one proportion of Spanish flies, pulverized.

Astringent Plaster.

Take of white oak bark a sufficient quantity; macerate it in cold water one day, then put it into a boiler, and evaporate till an extract is obtained.

Use.—It is useful in hernia or rupture. To be spread on a soft piece of leather, and applied over the rupture; after which a *truss* must be worn.

Adhesive and Strengthening Plaster.

Take of White resin,	3 pounds
Beeswax,	4 ounces
Burgundy pitch,	4 do.
Mutton tallow,	4 do.

Melt these together, and then add

Sweet oil,	½ ounce.
Camphor,	½ do
West India rum,	1 gill.
Sassafras oil,	½ ounce.

When the latter articles have been incorporated with the former, let the whole be poured into a vessel of water, and work it in the hands till cold. In some seasons and climates a little more resin, or a little more sweet oil, is required to make it of the right consistence.

Use.—This is used as a sticking plaster, in rheumatism. It is likewise useful in cuts, ulcers, &c. This makes an elegant plaster.

Irritating Plaster.

Substitute for McNair's; and far superior. The following plaster is an admirable preparation for chronic and painful complaints, for the liver, spine, and other diseases. I find that it is a substitute for McNair's *counter-irritating plaster*, and altogether better. Mr. Drury B. Boyd, from Kentucky, informs me that he has worn it on his side, for a complaint of his liver with excellent effect. It produces some irritation, and a slight discharge.

Take of good thick Tar, a pound; Gum Turpentine, half a pound; Burgundy Pitch, half a pound; Beeswax, half a pound; melt, strain, and boil a few minutes; then remove from the fire, and stir in as it cools, the following articles, finely pulverized, mixed, and sifted, viz:—three ounces each of Poke-root, Mandrake, Blood-root, and Indian Turnip. Keep stirring occasionally, till the whole mass is uniformly incorporated.

Directions.—Spread on a piece of soft leather and place over the part affected. Keep it on as long as can be borne, then remove, and put it on again in a day or two.

If the itching proves too troublesome, occasionally remove and wash the parts with water or spirits.

This plaster brings out pustules or eruptions like the small-pox, and causes a discharge of matter. It appears superior to all other plasters. I should recommend those who have obstinate ulcers to apply the *irriating plaster.*

Common Strengthening Plaster, called "Sear Cloth Plaster."

Take of Resin, (usually termed rosin,)	1 pound.
Beeswax,	4 ounces.
Capsicum,	4 do.
Spirits,	1 quart.

Simmer the pepper (enclosed in a linen bag) in the spirits, and strain. Melt the other articles together, and add the tincture; simmer till the spirits is nearly all evaporated. Take it from the fire, and when nearly cold, add two ounces of fine camphor and three drachms of oil of sassafras.

Use.—This is used whenever a strengthening plaster is wanted. It eldom or never fails to afford relief.

POULTICES.

Poultices or cataplasms are external applications, of a soft or pulpy

consistence, and somewhat tenacious. They are of various kinds : some are designed for discutients, others to produce suppuration ; some are refrigerant or cooling, while others are stimulating ; others again, are emollient. In general, poultices are best applied warm or tepid ; and they should not be suffered to get dry before renewed.

Linseed Poultice.

Take of Linseed, powdered, ... 4 ounces.
Hot water, ... ½ pint.

Gradually sprinkle the powder into the water, and stir well together with a spoon.

Use.—This is a good and convenient emollient poultice for many cases. It is preferable to the bread and milk poultice, so much in use, as it is not so liable to become brittle and hard when dry. It is very useful in carbuncle, obstinate inflammation, &c.

Carrot Poultice.

Take of Boiled carrots, bruised, ... 1 pound.
Flour, ... 1 ounce.
Batter, ... ½ do.

Mix them with a sufficient quantity of hot water to form a pulp.

Use.—This will be found a valuable application to ulcerated sores and swellings, scrofulous sores of an irritable kind, and many other inveterate ulcers.

Mustard Cataplasm.

Take of Mustard, in powder, ... 4 ounces
Soft bread, or Indian meal, ... 6 ounces.

Vinegar, of the best quality, as much as is sufficient to mix, and make into a cataplasm.

Use.—This is found to be a good application to the soles of the feet in cases of rheumatism, gout, inflammatory diseases, fevers, &c.

Common Poultice.

Take of slippery elm bark a sufficient quantity, pulverized ; stir it in hot or warm milk and water, to the consistence of a poultice.

Use.—This poultice exceeds every other in point of efficacy. It is of almost universal application, and removes inflammation sooner than any other. Compared to this, every other poultice dwindles into insignificance.

Alkaline Poultice.

Take of ley, rather weak, warm it, and stir in of slippery elm bark sufficient to form a poultice.

Use.—This poultice is useful in inflammation of the breast and other parts, in felons, white swellings, lock jaw, wounds, fistulas, &c.

Yeast Poultice.

Take of Milk, blood-warm, ... 1 pint.
Yeast, ... 1 gill.

Stir in fine slippery elm bark, to form a poultice.

Use.—This is a good antiseptic and refrigerant poultice. Applied to gangrenous ulcers, it is more efficacious than any other : it sooner arrests mortification, used with proper auxiliaries. It is also very serviceable in other species of inflammation.

Indian Turnip Poultice.

Take of the tops and roots of Indian turnip, if green; if dry, the roots only; simmer in water, and add slippery elm bark sufficient to form into a poultice.

Use.—This poultice is used in the treatment of king's evil or scrofula with the best effect. I think it altogether superior to every other poultice in scrofula in a state of swelling and inflammation

Potatoe Poultice.

Boil the common potatoe, mash or bruise soft, and then stir in the slippery elm bark.

Use.—This poultice has been used with success in ophthalmia of an acute character, when other means have failed.

Cicuta Poultice.

Take the plant, green or dry, and boil in milk and water until it is very soft; add a very small quantity of the slippery elm bark, sufficient to make it adhere; apply it blood-warm.

Use.—It is excellent to produce suppuration, especially in those swellings where the glands are indurated, inflamed *breasts*, *testicles*, *cancers*, &c.

Ferris's Poultice.

Scrape the common carrot, add to it a decoction of spikenard root, and stir in Indian meal.

Use.—The late Dr. Ferris was in the habit of using this poultice in cases of inflammation bordering on gangrene or mortification.

Black Willow Poultice.

Take the root of black willow bark, (called pussy willow,) pulverized, a sufficient quantity; form it into a poultice by the addition of cream.

Use.—This is the common poultice of the celebrated Dr. Bone, of New Jersey, who has acquired great celebrity for the successful treatment of inflammation and ulcers.

PILLS.

Pills are certain small, round substances, composed of vegetables, and are designed to operate in a small dose: the disagreeable taste or smell of them renders it necessary that they should be concealed from the palate.

In general, they do not operate as soon as medicine in other forms. Pills are a good form to administer some kinds of medicine, as some can take it made in this manner better than any other.

Anti-dyspeptic Pills.

Take of Socotrine aloes,	4	ounces.
Castile soap,	2	do.
Colocynth,	2	do.
Gamboge,	2	do.
Extract of gentian,	4	do.
Oil of cloves,	2	drams

Mix, and form into pills of the size of a pea.

Dose.—One or two morning and evening, according as they operate.

Use.—This is a very valuable pill; while it cleanses the stomach, it restores the tone, without creating debility.

Nervous or Hysteric Pill.

Take of Asafœtida, ... 1 ounce.
Opium, ... 1 do.
Carbonate of ammonia, ... 1 do.

Dissolve the same over a fire, mix, and form into pills of the size of a pea.

Dose.—One or two.

Use.—It is useful in hysterics, and all nervous cases.

Opium Pill.

Take of Turkey opium, cut out the soft part, and form it into pills of the size of a pea, (three grains,) and rub them in a little flour.

Dose.—One every hour; or two, if necessary.

Use.—This is the best form to give opium in very urgent and acute cases. In vomiting from any cause, attended with spasms, it affords prompt relief. It is useful in colic, &c.

Hepatic Pill.

Take extract of dandelion; mandrake, pulverized; blood root, pulverized; of each equal parts, or sufficient to make a pill mass; add a few drops of essential oil, peppermint, or spearmint, and form into common sized pills. Take three night and morning.

This is an extraordinary remedy for the liver complaint. It generally soon removes the pain in the side, shoulder, &c., and is excellent in jaundice and affections of the kidneys. The irritating plaster should be worn over the seat of the disease. An amendment is sure to follow their use in a few days.

Croton Pill.

Take of Croton oil, ... 2 drops.
Extract of rhubarb, or mandrake, ... 1 drachm.

Form into twelve pills, and take two or three every night; they will keep the bowels regular, without debility.

Ipecac Pill.

Add molasses or mucilage of gum Arabic, and form into pills size of a pea. Dose, one or two three times a day. Good for fever, dyspepsia, &c.

Rheumatic Pill.

Inspissated juice of poke; gum turpentine; gum guaiacum, pulverized; mix all, melt, and strain. When sufficiently cool form into pills common size. Dose, three morning, noon, and night. Excellent for rheumatism.

Female Pill for Obstructed Menses.

Equal parts of Red Oxide of Iron, Aloes, and White Turpentine, pulverized. Melt the Turpentine, strain; and when cold, pulverize—mix all together with mucilage of Gum Tragacanth. Dose, three or four, two or three times a day, with Motherwort tea.

Mandrake Pill.

Take of Extract of mandrake, ... 2 parts.
Capsicum, ... 1 do.

Mix: form into pills common size. Dose, three or four every night, or sufficient to regulate the bowels. Excellent for liver, bilious, dropsical, dyspeptic, and nervous complaints.

Pill for Chronic Bronchitis and Asthma.

"The following preparation," says a physician. "may almost be called a specific for the cure of *chronic bronchitis*." "I have used it," says he, "in several cases, and performed cures in each: Make a pill of *tar*, *loaf sugar*, and pulverized *skunk cabbage-root*: take one every one, two, or three hours, as they agree with the stomach, and continue daily till cured; which, in my cases, was from four to six weeks.

Cicutà Pill.

Take of Cicuta leaves, add sufficient turpentine to form into pills.

Dose.—One or two may be given for a dose.

Use.—This pill aids in discussing hard, glandular tumours.

Hydragogue Pill.

Take of Jalap, ... 1 scruple.
Scammony, ... 1 do.
Gamboge, ... 1 do.

Add mucilage of gum Arabic, enough to form into pills. Make sixteen pills.

Dose.—One every hour.

Use.—This pill has cured the dropsy of the chest, and may be given when other means fail.

Red or Stimulating Pill.

Take of Cayenne pepper, add sufficient of molasses and flour to form into pills.

Use.—Useful in dropsy of the chest, asthma, flatulence, indigestion, pain, &c.

Dose.—Give three pills three times a day; or take them occasionally.

These pills cured a person labouring under dyspepsia, when other means had failed. It also cured a case of pain in the breast.

Nervous Pill.

Take of Extract of foreign valerian, } equal parts.
Extract of chamomile, }

Mix, and form into three grain pills, and take three or four a day. Useful in Cholera and nervous cases.

Anti-bilious Pill.

Take best aloes, pulverized, ... 5 ounces.
Dry Castile soap, fine, ... ½ do.
Gamboge, fine, ... 1 do.
Colocynth, ... 1 do.
Extract of gentian, ... 1 do.
Mandrake, ... 1 do.
Capsicum, ... 2 do.
Oil of peppermint, ... ½ drachm.

Incorporate well together, and form into pills.

Dose.—From three to five. This makes one of the best pills for all ordinary complaints, and purges without griping or causing debility, or leaving the bowels costive.

Anti-hysteric Pill.

Take of Musk, ... 24 grains.
Extract of Opium, ... 12 do.
Extract of valerian, ... 24 do.

Make sixteen pills.

Dose.—Give one or two occasionally.

POWDERS.

Powders are the most simple and natural form in which medicine can be given, as their virtues are not impaired by passing through any particular process; but when it is necessary to administer a large quantity of any article, they cannot be conveniently taken in this form. They are either simple or compound. All powders should be kept in a glass vessel, closely stopped, and from the light, otherwise their virtues may be impaired.

Powders may be administered in molasses, honey, syrup, tea, or any other suitable vehicle.

Snuff Powder.

Take of High laurel, ... 1 ounce
Sassafras, ... 1 do.
Blood-root, ... 1 do.

Pulverized: mix well.

Use.—Good for catarrh, obstructions of the head, &c.

Anti-bilious or Cathartic Powder, Common Purgative or Physic.

Take of Jalap-root, ... 1 pound.
Alexandria senna, ... 2 do.
Cloves, ... 2 ounces.

Let these articles be separately pulverized; then mix them together, and pass through a fine sieve.

Dose.—A tea-spoonful, (about a drachm.) It should be put into a tea-cup, with a lump of loaf sugar, and a gill of boiling water added; given to the patient when cool, fasting, or on an empty stomach.

Use.—This forms the best general purgative that is now known. It combines power with mildness of action, and acts throughout the whole alimentary canal, cleansing it, and producing a healthy action. It may be given to every age and sex; it removes offensive accumulations in the bowels without bringing on subsequent constipation; and it stimulates every contiguous organ to a healthy state. It is useful in all diseases where physic is required. It is very valuable in bilious and febrile diseases. The articles must be genuine. I have seen it made so bad that I could not recognise it. Gruel alone to be drank during the day the above is taken.

Fever and Ague Powder.

Take of Sulphate of quinine, ... 1 scruple.
Capsicum, ... 2 do.

Mix, and rub well in a mortar; divide into ten powders, and give one every two hours, in syrup, after having cleansed the stomach and bowels. A sure remedy for chills and fever; and excellent where the wine tincture cannot be taken.

Anodyne Powder.

Take best Turkey opium, and suspend it in a bag in the chimney till hard or dry: pulverize, and sift.

Take of this opium, ... ½ ounce.
Capsicum, ... 1 do.

Mix, and rub well in a mortar.

Dose.—From two to four grains, in syrup, every two or four hours till relief is obtained. This is a powerful anodyne, and is sure to relieve pain when all other means fail; but should only be given in urgent cases, and when no relief can be obtained by other means. Exceedingly valuable in fits, lock-jaw, colic, and severe pain.

Common Emetic Powder.

Take of Ipecacuanha,	4	ounces.
Lobelia,	4	do.
Blood-root,	2	do.

Pulverize separately.

Dose.—A tea-spoonful, given every thirty minutes till it operates. It should generally be given in warm boneset or chamomile flower tea. If the first or second portions are rejected, continue to give it till vomiting takes place.

Use.—This emetic, perhaps, is unsurpassed by any other for efficacy of action. It is administered in all those cases where an emetic is indicated; and, from its extensive effects upon the system, is very efficacious in breaking up morbid associations, or exciting a healthy action of the system. It is useful in febrile and other diseases, &c. Excellent in the chronic affections of the liver, stomach, and intestines; drink freely of herb tea.

Another Emetic.

Says a physician. "I use the following powder for an *emetic*. The *skunk cabbage* seems to prevent any unpleasant spasm:

Take of Lobelia,	12	ounces
Blood-root,	6	do.
Skunk Cabbage,	6	do.
Ipecac,	8	do.
Capsicum,	2	do.

Mix.

Dose.—Half a tea-spoonful, in boneset tea, every fifteen minutes till it operates. If the first or second doses are rejected, repeat. Boneset facilitates and renders the operation less severe."

Bone's Emetic and Cathartic Powder.

Take of Euphorbia ipecacuanha, (half a tea-spoonful,)	½	drachm

To be given in molasses.

Use.—This is excellent in dropsy, obstruction of the menses, jaundice and liver complaint. This medicine is much given by Dr. Bone.

Emmenagogue, Black, or Tonic Powder.

Take of Flour of sulphur,	4	ounces.
Gum myrrh,	4	do.
Steel filings, fine,	4	do.
Loaf sugar,	4	do

Add to these articles a quart of wine, and simmer till nearly dry; remove from the fire, and, when cold, pulverize, and bottle for use.

Dose.—Half a tea-spoonful three times a day, to be taken in molasses; or the same quantity may be taken in the form of pills.

Use.—This forms an excellent preparation for the treatment of amenorrhœa or obstructed menses, when that complaint is an idiopathic or primary disease.

Diaphoretic Powder.

Take of Gum opium,	½	drachm.
Camphor,	2	do.
Pulverized ipecacuanha,	1	do.
Cream of tartar, or super-carbonate of soda,	1	ounce.

Pulverize all separately, then mix. It is best to use pulverized opium.

Dose.—Ten grains, or half a tea-spoonful, as often as may be necessary.

Use.—This forms a valuable anodyne, diaphoretic, and sudorific. It is beneficially administered in fever, St. Anthony's fire, diarrhœa, dysentery, and cholera morbus, and in all cases where an anodyne, combined with a sudorific, is required. In these diseases it should be administered in small doses. It is also applicable to many other diseases, such as rheumatism, gout, &c. It promotes perspiration without increasing the heat of the body. It produces a constant moisture of the skin for a great length of time, while it allays irritation.

Dr. F. H. Judd, of Greenville, Pa., Mercer Co., substitutes the *super-carbonate of soda* in place of *cream of tartar*. He considers it a great improvement. He follows the reformed practice with extraordinary success.

Eupatorium Powder.

Take of boneset, and pulverize it very fine.

Dose.—From a tea-spoonful to a table-spoonful three or four times a day, to be taken fasting; mixed in half a pint of hoarhound tea, and sweetened.

Use.—These powders have been used with considerable success in the treatment of dyspepsia, intermittent fever, and pulmonary diseases.

Smith's Cough Powder.

Take of Elecampane-root,	2	ounces.
Liqnorice-root,	2	do.
Blood-root,	2	do.
Crane's bill,	2	do.
Indian turnip,	2	do.

Pulverize fine.

Dose.—Half a tea-spoonful three times a day.

Use.—Good expectorant, pectoral, and tonic.

Smith's Colic Powder.

Take of Pleurisy root,	1	ounce.
Cayenne pepper,	1	drachm.

Pulverize, and mix in half a pint of water.

Dose.—One table-spoonful every 20 minutes till it operates or relieves.

Fever Powder.

Take of dragon's claw, pulverized.

Dose.—A tea-spoonful, infused in a proper quantity of water, morning and evening.

Use.—These powders have been much celebrated in the treatment of fevers, and particularly of that species called hectic fever. They act as a mild, but efficient, sudorific, without increasing the force of the circulation. They may be safely administered in almost every stage of fever

Cephalic Powder.

Take of Blood-root,	1	ounce
Bark of the root of bayberry,	1	do.
Common snuff,	1	do.

Mix.

Use.—Useful in catarrh, headache, polypus, &c.

Red or Styptic Powder.

Take of copperas; submit it to a red heat, in a flame of fire; a decomposition is effected, and a red substance is formed. This, pulverized, forms a powder containing highly styptic and astringent properties.

Use.—It is used in the treatment of bleeding piles, and in stopping hæmorrhage or bleeding. It may be mixed with a little melted tallow, and introduced up the rectum, for the bleeding piles. It is very good, in salt rheum, mixed with fresh butter.

Hull's Bilious Physic.

Take of Socotrine aloes,	8	ounces.
Gum myrrh,	1	do.
Cinnamon,	1	do.
Cloves,	1	do.
Ginger,	1	do.
Saffron,	1	do.
Garden sunflower,	4	do

Pulverize fine, and mix.

Dose.—A tea-spoonful every hour till it operates.

Use.—This preparation has been celebrated as a remedy in the treatment of bilious colic.

Henry's Cephalic Snuff.

Take the roots of daisies, yarrow, and white hellebore, colt's foot leaves, and bayberry bark, of each one ounce, finely pulverized, and sift through gauze; mix the powders well together in a mortar, and drop in it one drachm of the essence of bergamot; after which put it in a bottle, closely corked, for use.

Dose.—A small pinch of this snuff may be taken at bed-time, as a cure for vertigo, "*megrims*," obstructions from catarrh, &c.; and I have found it effectual in relieving the headache.

Cephalic Powder.

Take black pepper, pulverized, two tea-spoonsful; stramonium, a table-spoonfull; sage, a table-spoonful: mix well together, smoke in a new pipe, and force the smoke through the nose. Excellent for catarrh and pain in the head.

Compound Powder of Mandrake.

Take of Pulverized mandrake,	}
Pulverized spearmint,	} equal parts.
Cream of tartar,	}

Mix.

Dose.—A tea-spoonful, in tea or syrup.

Use.—Useful in diseases of the liver, dyspepsia, obstructed menses, dropsy, in venereal diseases, and in every taint of the system.

I have this moment been to visit a young lady, whose menses had been obstructed for many months, attended with dizziness and pain in the head, enormous swelling of the abdomen, &c.; and where the exhibition of the above medicine, *mandrake* alone, every other morning, with two or three pills of gum turpentine, restored them, and removed the symptoms.

Cough Powder.

Take of Capsicum, ... 2 parts.
Ipecac, ... 2 do.
Pulverized opium, ... 1 do.

Mix, and incorporate well together.

Dose.—One-half as much as will lay upon a six-cent piece (five grains) every four hours, mixed with honey.

Use.—The above will allay irritation of the lungs when all other means prove unavailing. I give it in severe inflammation of the lungs and obstinate coughs, where other means afford no relief.

SALVES.

Salves are medicines of proper consistence, for spreading on linen or muslin, designed for external use, for burns, ulcers, &c. They are formed by uniting wax, resin, or oil with some remedial agent, either vegetable or some of the metallic oxides, such as red lead. They require to be made of a little harder consistence for summer than winter, and which may be done by adding or diminishing the quantity of oil.

Salves designed for ulcers should be renewed about twice a day.

Black Plaster or Healing Salve.

Take of Olive oil, ... 3 quarts.
Common resin, ... 3 ounces.
Beeswax, ... 3 do.

Melt these articles together, and raise the oil almost to boiling heat; then gradually add of pulverized red lead two and a quarter pounds, if it be in the winter; if in the summer, two and a half pounds. In a short time after the lead is taken up by the oil, and the mixture becomes brown or a shining black, remove from the fire; and, when nearly cold, add of pulverized camphor half an ounce.

It should remain on the fire until it forms a proper consistence for spreading, and which may be known by dipping a spatula or knife into it from time to time, and suffering it to cool.

Use.—We have found this salve superior to every other, where applications of this kind are required. It has an excellent effect in burns, fever sores, scrofulous, fistulous, and all other ulcers.

It should be spread thin, on a piece of linen, and renewed once or twice a day.

Green Salve.

Take of Turpentine, ... ½ pound.
Bayberry tallow, ... ½ do.

Dissolve together, and form into a salve; add sweet oil, if necessary.

Use.—This salve is designed for scrofulous ulcers.

Yellow Salve.

Take one bushel of the roots of the baptisia tinctoria, or wild indigo weed, and boil till the strength is out; then strain, boil, and skim; add ten pounds of fresh butter, three pounds of beeswax, and one and a half pounds of mutton tallow; then boil the water out, and strain till clear.

Use.—This salve is used by Dr. Bone for all kinds of ulcers. It is cleansing, detergent, discutient, &c. It makes a very handsome and efficacious salve wherever one is required, especially for venereal sores.

SYRUPS.

Syrups are liquids containing the properties of certain vegetables in a very concentrated state: they are prepared by boiling the ingredients until their strength is extracted and much of the watery portion evaporated; then adding a sufficient quantity of clarified sugar to prevent fermentation.

Syrup is an excellent form to administer many kinds of medicines. They should always be kept in a cool place.

In consequence of the oleaginous and other peculiar properties of most, or all, vegetables, water is not sufficient to extract their virtues; it will be necessary to use spirits. The two menstruums combined answer this purpose admirably: after the alcohol has extracted the component parts of the plants or roots, it is evaporated by boiling, when no danger need be apprehended from its stimulating effects.

Alterative Syrup.

Take of American or foreign Sarsaparilla,	6	pounds
Guaiacum shavings,	3	do.
Sassafras-root bark,	2	do.
Elder flowers,	2	do.
Burdock-root,	2	do.

Add one gallon of cheap spirits and one gallon of water; boil, and pour off the liquid; then add water repeatedly, and boil till the strength is obtained, strain, and reduce to sixteen porter bottlesful; then add twenty-five pounds of clarified sugar. Let it stand twenty-four hours to settle; pour off, and bottle for use.

The sugar may be clarified by adding to it half its weight of water, then a few eggs, and boiling till no more scum rises.

Dose.—A wine glassful three or four times a day.

Use.—This syrup, the alterative, we use in a great variety of cases. In syphilitic or venereal diseases, rheumatism, and chronic inflammation of the liver we could not dispense with it: we also use it in the treatment of scrofula, which presents itself in so many shapes. In some of the cutaneous diseases we find it very effectual: in every species of ulcer it is also valuable; white swelling, necrosis, rickets, salt rheum, or herpes; and, in short, we have found it very useful in every taint of the system, from whatever cause it may arise. I have used *Swaim's*, and many other boasted nostrums, but I find this preferable to all of them. It appears to act upon all the secretions and excretions. A tea of yellow dock may be taken with it: half an ounce of the *hydriodate of potash* to every bottleful is a valuable addition.

Vegetable Syrup.

Take of Liverwort,	1	pound.
Solomon's seal,	1	do.
Skunk cabbage,	1	do.
Blood-root,	½	do.
Water hoarhound,	1	do.

Add a sufficient quantity of water; boil, and pour off the water till the strength is obtained; strain, and boil to twenty porter bottlesful, and add twenty pounds of strained honey; remove from the fire, and add one pint of brandy; let it settle, and bottle for use.

Dose.—A wine glassful three or four times a day.

Use.—This preparation is used in every variety of pulmonary disease, and particularly, however, in hæmoptysis (bleeding at the lungs) and asthmatic affections.

Scrofulous Syrup.

Take of Yellow dock-root, ... 2 pounds.
Bark of bitter-sweet root, ... 2 do.

Bruise, and boil till the strength is obtained; then strain, and boil to twelve porter bottlesful; add sugar sufficient to prevent fermentation.

Dose.—A wine glassful three times a day.

Use.—This syrup is useful in scrofula and herpetic affections.

White Poppy Syrup.

Take of the capsules of white poppy, infuse them in warm water for twelve hours; then boil and strain, and add sufficient sugar to preserve it.

This forms a good anodyne, particularly for infants and children.

Prepared in this manner, there appears to be less of the narcotic property of the herb, than when prepared with spirits.

Dose.—The same dose is, therefore, required.

Use.—It relieves coughs and pains similar to paregoric, and possesses about the same strength.

Blackberry Syrup.

Take two pounds of the bark of the root, well cleansed or washed, and add a suitable quantity of water; then boil two hours. Pour off the liquid; then add more water; and thus continue to boil and pour off until all the strength is extracted; then strain, and add all the boilings together. Simmer to two quarts; strain; then add four pounds of loaf sugar, and, when cool, add half a pint of best French brandy.

Dose.—A table-spoonful three times a day, fasting. If it does not arrest the disease after taking it a few days, gradually increase the dose, as the stomach can bear it.

Use.—This is a very valuable syrup in bowel complaints, particularly the chronic form. It will effect a cure when every other means fail. It appears to possess specific virtues, different from all other vegetables.

A rob or jelly is made of the fruit by bruising it, pressing out the juice, straining, and adding sugar, which is useful to mix with water, and to drink.

Hoarhound Syrup.

Take of the leaves of hoarhound, dried, two ounces; infuse them for twenty-four hours in half a pint of boiling water and as much spirits; strain, and add quarter of a pound of honey and one tea-spoonful of the essence of lemon.

Dose.—For an adult, one or two table-spoonsful every two hours.

Use.—This is recommended for hoarseness, asthma, complaints of the breast, lungs, &c. It promotes the fluid secretions in general, and, if used very freely, will loosen the mucus.

Syrup for the Dysentery.

(Which, it is said, has never failed in thirty years.)

Rhubarb and wild cherry bark, a handful; four table-spoonsful of sugar; simmer awhile.

Dose.—Give a table-spoonful every fifteen minutes until the pain ceases. Make it fresh every day, and add a little brandy.

Use.—The above is taken from a work called the "*Indian Physician*," and is pronounced infallible in dysentery.

Expectorant Syrup.

(From the same.)

A handful of St. John's-wort; one of sage. Make a syrup.

Dose.—For a child six months old, a tea-spoonful; for one of six years old, give a table-spoonful every fifteen minutes.

Cough Syrup.

Take of Iceland moss, ... 2 ounces.
Four poppy heads,
One table-spoonful of barley, (whole.)

Put in three pints of water, and boil down to two; strain. Then dissolve one pound brown rock candy.

Dose.—A table-spoonful whenever the cough is troublesome.

Use.—Useful in tickling cough.

SPIRITS.

Spirits are similar to tinctures; they are usually compounded of several ingredients. The principal menstruum is alcohol, either pure or diluted: sometimes spirits or vinegar alone are used to prepare this class of medicines.

Compound Spirits of Lavender, (called Lavender Compound.)

Take of Flowers of lavender, ... 2 drachms.
Nutmeg, ... 2 do.
Mace, ... 2 do.
Cloves, ... 2 do.
Cinnamon, ... 2 do.

Pulverize, and add a quart of spirits.

Dose.—One or two tea-spoonsful may be taken often, in a little water or tea.

Use.—This pleasant, aromatic preparation is useful in debility, fainting, hysterics, and all nervous affections, pain in the breast, flatulence, &c.

Spirits of Camphor.

Take of Gum camphor, ... 1 ounce.
Alcohol, ... 1 pint.

Mix.

Dose.—Half a tea-spoonful may be taken in a little water, sweetened.

Use.—This preparation contains all the virtues of camphor: it is useful in flatulence, pain or sickness of the stomach, colic, cramp, &c. Combined with equal parts of spirits of lavender and essence of peppermint, it becomes more efficacious. I found much benefit from it myself during the cholera.

SINAPISMS OR DRAUGHTS.

Sinapisms and other stimulating draughts are employed with the same intention as the common blister, to produce counter-irritation; and they often give relief very speedily in internal pains and inflammation. Mustard poultices or plasters act much more quickly than blisters, and are free from that inconvenience and distress which arise from the latter. They should be applied sufficiently strong to produce a little pain, or to redden the skin; after which they may be removed, and applied near the same place. They are excellent to relieve pain and inflammation of the head in febrile and

other diseases; are very useful to equalize the circulation in very many complaints. Recently I have substituted mustard plasters for blisters.

Mustard Sinapism.

Take of Mustard, } equal parts.
Rye, Indian, or oat meal, }

Form it into a proper consistence by the addition of vinegar.

Use.—This plaster answers all the purposes of a blister, without its being attended with any of the distressing effects which generally result from its application. They should be made sufficiently strong to redden, but not to break, the skin. They may be very often changed from place to place with a good effect. They are very valuable, applied to the feet, to cause revulsion or equalize the circulation; hence they are useful in fevers, inflammation, &c.

Garlic and Onion Sinapism.

Bruise garlic or raw onions, and apply.

Use.—Useful in the same diseases as the preceding, in pneumonia or inflammation of the lungs, &c.

TINCTURES.

Tinctures are certain active ingredients, principally vegetable substances, which are imparted to alcohol, spirits, or wine. Tinctures are excellent for administering a great variety of medicinal agents; but in some cases there may be an objection to them, in consequence of the spirits which they contain. Substances yield their virtues more readily to spirits by the addition of heat.

Hydragogue Tincture.

Take of Bark of sweet elder, ... 1 pound.
Good wine, ... 1 gallon.

Let it simmer an hour; strain, and bottle.

Dose.—A wine glassful three or four times a day.

Use.—This tincture is usefully administered in dropsical affections, particularly in abdominal dropsy. It has cured many without any other ingredient.

Botanical Tincture.

Take of Gum guaiacum, ... 1 ounce.
Nitre, ... 1 do.
Camphor, ... 2 drachms.
Balsam tolu, ... 2 do.
Spirits, ... 2 quarts.

Mix.

Dose.—Two tea-spoonsful three or four times a day, to be taken in a tumbler of prickly-ash tea.

Use.—This formula I obtained from Dr. Budd, a celebrated physician in New Jersey. He procured it from another physician in Charleston, S. C. It is highly extolled in rheumatism and many external painful chronic affections. I have used it but little; but the doctor informs me he is so partial to it that he usually prepares five gallons at a time.

Tincture of Lobelia.

Take of Pulverized lobelia, seeds or pods, ... 2 ounces.
Spirits, ... 2 quarts.

Let it stand two or three days, or longer, and filter.

Dose.—From a tea-spoonful to a table-spoonful, as often as necessary.

Use.—This tincture is an excellent remedy in the treatment of asthma, croup, and pulmonary affections. It is also given in tetanus and poisons.

Tincture of Hops.

Saturate alcohol with the pollen of hops.

Dose.—From one to two tea-spoonsful, in milk

Use.—Useful in after-pains, and in cases where opium cannot be taken.

Tincture of Balsam Tolu.

Take of Balsam tolu, ... 1 ounce.
Alcohol, ... 1 pint.

Let it stand one week, and filter.

Use.—This is combined with the compound tincture of senna, for the *water-brash.*

Tincture of Castor.

Take of Castor, ... 2 ounces
Spirits, ... 1 quart.

Let it digest one week.

Use.—Useful in nervous diseases and suppressed menses.

Anti-spasmodic Tincture.

Take of Tincture of lobelia, ... 1 pint.
Tincture of Capsicum, ... 1 do.
Compound tincture of valerian or nervine, ... 3 gills.

Mix, and bottle for use.

Dose.—From a tea-spoonful to a table-spoonful, in a gill of water or herb tea; to be given every twenty minutes.

Use.—Dr. Booth, of Alabama, states that he has found it an infallible remedy for fever and ague. He gives a tea-spoonful just before the *cold stage* of the disease; to be repeated every twenty minutes until nausea or vomiting takes place.

This tincture is also recommended for fits, spasms, and all violent attacks of disease; suspended animation from drowning, hanging, lightning, or any other cause. Also good in cases where poisonous substances have been taken.

Compound Tincture of Valerian or Nervine.

Take of Skull-cap, ... 4 ounces
American valerian, or ladies' slipper, ... 4 do.
Best French brandy, ... 1 quart.

Bruise the plants, and add to the brandy.

Dose.—From a tea-spoonful to a table-spoonful occasionally, in sweetened water.

Use.—This tincture is useful in all nervous diseases.

Balm of Gilead.

Take of Balm of Gilead buds, bruised, ... 2 ounces.
The strongest Jamaica spirits, ... 1 quart.

Digest a few days.

Dose.—From a tea-spoonful to a table-spoonful, mixed with sweetened water. This has benefited many.

Use.—Excellent for colds, coughs, and pain in the breast.

Tonic Tincture. (*For four gallons.*)

Take of Good sour or hard cider,	4	gallons.
White oak bark,	10	ounces.
Horseradish root,	1	pound.
Seneca snake-root,	6	ounces
Carbonate of iron,	6	do.
Golden seal root,	4	do.
Capsicum,	2	do.

Bruise all fine and put in the cider; let it be shaken up every day for eight or ten days.

Use.—A sure remedy for intermittent fever, debility, and impoverished state of the blood. It is excellent in obstructed menses, and the dropsy, worms, &c.

Dose.—For an adult, half or two-thirds of a wine glassful three times a day; for children, according to their age.

The above was communicated by Isaac S. Smith, M.D., of this city, a very judicious physician of the *Reformed School of Medicine.*

Stimulating Drops, Hot Drops, Tincture of Capsicum.

Take of African capsicum or Cayenne pepper,	1	ounce.
Best French brandy,	1	pint

Mix.

Dose.—From half to a tea-spoonful, in plenty of sweetened water.

Use.—Good internally and externally; for pain in the stomach and bowels, cold and languid circulation, &c. Repeat, if necessary.

A patient has just stepped into the office to whom I gave most of our ordinary remedies without any benefit; finally, I administered the *tincture of capsicum*, which immediately removed the pain.

Physical Tincture, Elixir Salutis, or Compound Tincture of Senna.

Take of Alexandria senna,	2	ounces.
Jalap,	1	do.
Fennel seeds,	½	do.
Spirits or best brandy,	1	quart.

Let it stand one week, and then strain.

Dose.—A tea-spoonful or two to a child one year old, mixed with a little sweetened water.

Use.—A mild, but effectual, purgative. This forms an excellent purgative, particularly for children. It acts mildly, but effectually, cleansing well the stomach and bowels; besides, it is very pleasant.

Laudanum, or Tincture of Opium.

Take of Turkey opium,	2	ounces.
Proof spirits,	1	quart.

Let it stand a week.

Dose.—From thirty to one hundred drops.

Use.—Given as an anodyne.

Compound Tincture of Camphor, or Paregoric.

Take of Opium,	1	drachm.
Flowers of benzoin,	1	do.
Camphor,	2	scruples.
Anise,	1	drachm.
Proof spirits,	1	quart.

Dose.—A tea-spoonful for a child a year old.

Use.—Given to allay irritation or pain, for flatulence or wind, in coughs, &c. This preparation should be sparingly used.

Tincture of Stramonium.

Take of Pulverized seeds of stramonium, ... 2 ounces.
Proof spirits, ... 1 quart.

Let it stand one week.

Dose.—Twenty-five drops twice a day. In cases of fits it may be increased until the pupil of the eye becomes somewhat dilated, or until it causes a little pain or dizziness in the head.

Use.—It is useful in epilepsy, neuralgia, palpitation of the heart, &c.

Expectorant and Anti-spasmodic Tincture.

Take of Capsicum, ... ½ ounce.
Blood-root, ... 1 do.
Lobelia seeds, ... 1 do.
Ipecac, ... 2 do.
Wine, spirits, or metheglin, ... 3 pints.

Let it stand one week. When taken, mix with water.

Dose.—A table-spoonful twice a day, or as often as may be necessary.

Use.—It is useful in inflammation of the lungs, pleurisy, hooping-cough, consumption, fits, &c., and when there is any difficulty of expectoration.

Tincture of Cohosh.

Take of Black cohosh, the root, ... 3 ounces.
Proof spirits or wine, ... 1 quart.

Let it stand a few days.

Dose.—Half a table-spoonful three or four times a day.

Use.—Useful in obstinate coughs, rheumatism, and impurity of the blood. It is highly recommended by Dr. Cooke, for hooping-cough.

Tincture of Fox-glove.

Take of Fox-glove, ... 1 ounce
Proof spirits, ... 1 pint.

Digest one week, and strain.

Dose.—From fifteen to twenty drops, to be given three or four times a day, in parsley tea.

Use.—Used for inflammatory diseases. It lessens the pulse, by diminishing arterial excitement, and thereby prevents the necessity of blood-letting. It is recommended in inflammation of the lungs. It is also very valuable in dropsy of the chest.

Sudorific Tincture or Sweating Drops.

Take of Ipecac, ... 2 ounces.
Saffron, ... 2 do.
Camphor, ... 2 do.
Virginia snake-root, ... 2 do.
Opium, ... 2 do.
Holland gin, or Jamaica spirits, ... 3 quarts.

Let it stand two weeks, and filter.

Dose.—One tea-spoonful, given in a tumblerful of catnip tea, every hour or two till it produces perspiration.

Use.—This medicine is probably unsurpassed in fulfilling the indications for which it is given, which is generally to produce free perspiration. One or two doses, aided by warm infusions, and bathing the feet, cause a copious perspiration. Hence it is useful in a variety of diseases: in fever, inflam-

mation, &c., I know of no medicine so certain in its operation. I should be much gratified to find the same effect from some native plant. Perhaps the sweat root (*polemonium reptans*) of Ohio will fulfill the same indications: it is called Greek valerian, abscess root, &c. I hope it will be more fully tested.

Tonic Wine Tincture.

Take of	Peruvian bark,	2 ounces.
	Wild cherry tree bark,	1 do.
	Cinnamon,	1 drachm.
	Cloves,	1 do.
	Nutmegs,	1 do.
	Capsicum,	1 tea-spoonful.
	Sulphur,	1 ounce.
	Wine,	2 quarts.

Let it stand awhile. All the articles to be pulverized.

Dose.—A wine glassful every two or three hours.

Use.—This mixture we have found an infallible cure for intermittent fever, or fever and ague. It removes it when all other means fail.

ESSENCES.

Essences are made by adding alcohol to the essential oils, in proportion of one ounce of oil to sixteen ounces of alcohol. They are useful externally, to relieve pain, and used with advantage internally, for many complaints.

Essence of Peppermint.

Take of	Oil of Peppermint,	1 ounce.
	Alcohol,	1 pint.

Mix.

Dose.—A tea-spoonful.

Use.—Useful in pain of the breast, cramp, sickness of the stomach, &c

Essence of Hemlock.

Made in the same manner

Dose.—Twenty-five or thirty drops, on sugar or in tea.

Use.—Useful in rheumatism and pain in the breast; also for sprains, &c.

Essence of Sassafras.

Made in the same manner.

Use.—It is useful in gout and rheumatism, pain in the breast, lumbago, sciatica, contusions, &c.

The other essences are made in the same manner, and their virtues are the same as the oils from which they are made

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SUPPOSITORIES.

These are solid remedies, of the conical form, intended to be introduced into the rectum, and to remain there for a certain length of time, to act as stimulants and discutients.

Suppositories.

Take of Aloes, pulverized, ½ ounce
Gum myrrh, pulverized, ½ do.
Castile soap, shavings, ½ do.
Sugar lead, ½ do.
Oxide of copper, ½ do.
Vegetable caustic, ½ do.

Pulverize, and add two quarts molasses; put the whole in an iron vessel, and simmer until, upon trial, the mass becomes sufficiently hard to form into small cones, about the size convenient for introduction per anus.

One or two, introduced up the rectum daily, are excellent for the piles and strictures of the bowel.

WASHES.

Washes or lotions are certain liquids, in which are suspended medicinal agents, and designed principally for external use.

Herpetic Wash.

Take Poke root pulverised, Lobelia, do. Yellow dock, do. } equal parts.

Bruise, and add a table-spoonful to one pint of vinegar or spirits

Use.—Bathe often for eruptions of the skin.

Alkaline Wash.

Ley made of hickory ashes, weak; or, which may be better for some reasons, a solution of sal soda.

Use.—These are remarkably efficacious for fevers, by bathing the surface often. Extraordinary benefit attends this practice; equal, if not superior, to internal medicine.

Ophthalmic or Cooling Wash.

Take of Borax, pulverized, 1 ounce
Rain or spring water, 1 quart

Let it stand twelve hours.

Use.—This forms a very cooling and useful wash for all kinds of inflammation, particularly the eyes; also sore and inflamed nipples, canker, and sore mouth and throat. It may be applied freely and often.

Refrigerant or Cooling Lotion or Wash.

Take of Sugar of lead, 1 drachm.
Rain water, ½ pint.

Mix.

Use.—This wash is cooling or refrigerant, and serviceable in inflammation, particularly erysipelatous.

Yellow Wash.

Take of Borax water, 1 pint.
Muriate of mercury, 1 drachm.

Mix.

Use.—This wash has been used occasionally as a mild and cleansing caustic, in the treatment of venereal and indolent ulcers. I never use it.

Saline Wash.

Take of Fine salt, ... 1 ounce.
Spirits, ... ½ pint.
Vinegar, ... ½ do.
Rain water, ... ½ do.

Or equal parts. Mix.

Use.—This makes a good refrigerant or cooling wash for many kinds of inflammations. We are in the habit of prescribing it, particularly in inflammation of the brain, dropsy of the head, &c. Sometimes it is applied tepid, at other times cool; but seldom cold, except in very urgent cases.

Astringent Wash.

Take of Dried bark of large hemlock, ...
Upland sumach-root bark, ...
Witch-hazel bark, ... } equal parts.
White oak bark, ...

Make a strong decoction.

Use.—This is useful to inject in fluor albus, to wash the parts in prolapsus ani, and uteri or falling of the bowel and womb. An excellent method is, to wet a sponge, tie a piece of tape to it, and keep it up the uterus till the complaint is cured. A decoction of oak and alum will answer.

MIXTURES.

Mixtures are a combination of medicines in a liquid form, or when substances are diffused through liquids by means of mucilage or syrup.

Saline Physic, White Liquid Physic.

Take of Epsom salts, ... ½ pound.
Rochelle salts, ... ½ do.
Sulphate of potash, (vitriolated tartar,) ..... ½ do.
Common salt, ... ½ do.

Mix, and add one gallon of boiling water; when cool, add one ounce of muriatic acid and one ounce of nitric acid.

Dose.—From one to two table-spoonsful every two hours till it purges, in cold water.

Use.—A cooling purgative; good to allay sickness at the stomach, vomiting, for colic, bilious and bowel complaints, &c. A tumblerful of warm herb tea to be taken after each dose.

Anti-choleric and Anti-spasmodic Mixture.

Take of Camphor mixture, ... 4 ounces.
Essence of peppermint, ... 4 do.
Tincture of capsicum, ... 1 drachm
Syrup of ginger, ... ½ ounce.

Mix.

Dose.—One table-spoonful every quarter, half, or one and two hours, according to the urgency of the symptoms.

Use.—This mixture is useful in the malignant or spasmodic cholera, cramp of the stomach, fits, &c.

Nervous Mixture.

Take of Mixture or liquid carbonate of ammonia, ... ½ drachm.
Mint water, distilled, ... 1½ ounces
Compound tincture cardamon, ... ½ do.

Mix.

Dose.—Two table-spoonsful three times a day.
Use.—Useful in fainting, hysterics, debility, and all nervous cases.

Neutralizing Mixture, Neutralizing Cordial or Physic.

Take of Rhubarb, pulverized,
Sal æratus, pulverized,
Peppermint plant, pulverized, } equal parts

To a large tea-spoonful add half a pint of boiling water; when cool, strain, sweeten with loaf sugar, and add a table-spoonful of brandy.

Dose.—One or two table-spoonsful every quarter, half, or one or two hours, according to symptoms.

Use.—This is one of the most valuable preparations known for cholera morbus, cholera infantum, or summer complaint of children, diarrhœa, dysentery, &c. Its operation and action appear to be a specific, if not infallible. It is excellent for pregnant women, to allay sickness and regulate the bowels.

ELECTUARIES.

Pile Electuary.

Take of Cream of tartar,	1 ounce.
Jalap, pulverized,	1 do.
Electuary of senna,	2 do.
Cream or flowers of sulphur,	½ do.
Nitrate of potash,	½ do.

Add molasses sufficient to make a pill or thick mass: roll into small cakes, quarter of an inch square; dissolve one in water and take every night; or it may be formed into pills common size, and four taken night and morning.

This makes a very superior remedy for the blind and bleeding piles. It usually excels all others: it corrects a faulty state of the biliary organs, which produces costiveness, and, subsequently, the piles.

Electuary of Senna, Lenitive Electuary.

Take of Alexandria senna leaves,	8 ounces.
Figs,	1 pound.
Tamarind pulp, obtained by macerating in water,	
Pulp of prunes, obtained in the same manner,	
Coriander seeds,	4 ounces.
Refined sugar,	2½ pounds.

Powder the senna leaves with the coriander seeds, and separate by sifting ten ounces of the mixed powder: boil the remainder with the figs, in four pints, until it is reduced to half; then press out and strain the liquor: evaporate the liquor to half a pint, and add the sugar to make a syrup; lastly, mix the pulp gradually with the syrup, and, having added the sifted powder, mix the whole together.

This is used for costiveness: a piece the size of a hickorynut to be eaten. It enters into the pile electuary. It is generally best to purchase it already prepared. The English is very superior.

I have given numerous compounds for diseases; but a few, well selected, are in general sufficient. It is desirable, however, to have them in possession, that they may be used if necessary; for it is known that a medicine which will benefit one person, will sometimes have little or no effect on another.

PART EIGHTH.

DIET FOR THE HEALTHY AND THE SICK.

Excess in eating and improper diet, as has been fully shown in Part 1. of this work, is a prevailing error, and causes more diseases than anything else, and aggravates those already formed. Dr. Caldwell has some excellent remarks on this subject: says he, "One American can consume as much food as two Highlanders or two Swiss, although the latter are among the stoutest of the race. Intemperate eating is, perhaps, the most universal fault we commit. We are all guilty of it, not occasionally, but habitually, and almost uniformly, from the cradle to the grave. It is the bane alike of our infancy and youth, our maturity and age. It is infinitely more common than intemperance in drinking; and the aggregate of the mischief it does is greater. For every reeling drunkard that disgraces our country, it contains one hundred gluttons—persons, I mean, who eat to excess and suffer by the practice." "How, indeed," he afterward exclaims, "can the case be otherwise, while children and youth are regularly taught, hired, bribed, or tempted to over-eat themselves from their birth! Do you ask me for evidence in proof of this charge? Go to our dining-rooms, nurseries, fruit-shops, confectionaries, and pleasure-gardens—go even to sick-rooms—and you will find it in abundance. You will witness there innumerable scenes of gormandizing, not only productive of disease in those concerned in them, but in many instances offensive to beholders. The frightful mess often consists of all sorts of eatable materials that can be collected and crowded together; and its only measure is the endurance of appetite and the capacity of the stomach. Like the ox in rich pasture-ground, or the swine at his swill-trough, men stow away their viands until they have neither desire nor room for any more."

Even in sickness, when nature obviously enjoins abstinence, by depriving the sick of an appetite, the nurse will often tease the patient to eat some nicely-prepared food; urging, as a reason, that he can't get well, or will become worse, without it. Beware of the bait! Abstinence is often much better than medicine; when food is necessary nature will soon call for it.

Galen, who flourished sixteen hundred years ago, maintained excellent views on diet, worthy of imitation. He remarks; "I beseech all persons who shall read this work, not to degrade themselves to a level with the brutes or the rabble, by eating and drinking promiscuously whatever pleases their palates, or by indulging their appetites of every kind. But, whether they understand physic or not, let them consult their reason, and observe what agrees and what does not agree with them; that, like wise men, they may adhere to the use of such things as conduce to their health, and forbear from everything which they find, by their own experience, to do them harm; and let them be assured that, by a diligent observation and practice of this rule, they may enjoy a good share of health, and seldom stand in need of physic or physicians."

I will now give directions for some dishes which are suitable both for the healthy and the sick.

In all preparations of food simplicity should be observed ; the fewer ingredients in a dish, the better.

Wheat Bread.—Bread should be made of unbolted wheat flour, or only the very coarsest part separated, ground coarse, and made in the usual manner. This keeps the bowels regular, while that made of superfine flour causes costiveness and dyspepsia, by a deficient stimulus imparted to the intestines

"The ancients," says Dr. Scott, "considered that bread most wholesome and nourishing which was made of flour retaining the *whole* of the bran that is contained in the wheat. Hence the Greek wrestlers used no other bread than that made of coarse, unsifted flour ; and this they considered so strengthening and nourishing, that they called a brown loaf *coliphium*, which imparts strength of limb. It would be well, then, if those who suffered from irregularity of bowels made use of this kind of bread only, as well as others. The heat and friction of the mill-stone serve, in some measure, to render the superfine flour insipid and lifeless.

Recipe for Bread.—Pour warm water, with the yeast, into the flour, and make a thick batter ; let it rise ; then stir in more meal, knead it, and put it into pans ; let it rise again, and then bake it. A little Indian meal or mashed boiled potatoes are a good addition. It may be mixed with milk or butter milk.

Bread and Milk are an excellent dish.

Wheat Pudding.—Mix coarse wheat flour with milk, (water will answer,) put into a bag, and boil well : to be eaten with butter and molasses or sauce.

Minute Pudding.—Boil milk, sweet or sour, and thicken with flour : to be eaten as above. An excellent dish.

Bread Pudding.—Soak bread or crusts in cold water till soft, and squeeze dry ; to one pint of which add one quart of milk, three or four eggs, and a tea-cupful of sugar. It may be baked or boiled.

Cakes.—Ferment coarse flour, and bake it on a griddle, the same as buckwheat cakes : to be eaten with butter or molasses.

Toast.—Toast bread slowly till very brown, pour on it a little milk or water, and add butter : generally rests well on the stomach.

Rye.—Rye bread is a wholesome article of diet, much more so than common wheat bread.

Rye Pudding.—Milk, thickened with rye flour, and eaten with butter and molasses, is very good.

Indian Corn.—Indian corn is probably the most healthy and nutritious food in the world. See Joel Barlow's poem on "Hasty Pudding." It may be used in various ways ; in the form of bread, pudding, cakes, &c.

Best Indian Bread.—Take one quart of sour milk, (or sour buttermilk,) add to it two tea-spoonsful of sal æratus, four eggs, and Indian meal sufficient to make it of the consistence of mush or pudding ; bake in a tin-pan for an hour with a moderate heat. The best Indian bread ever used.

Indian Bread.—Mix Indian meal with a little salt, wet with cold water, and make a thick batter ; put into tin-pans, and bake well ; to be eaten with butter. This is preferred to wheat bread at the south and west, and was the only bread used by GENERAL WASHINGTON.

Indian Pudding.—This is used daily in most of the eastern states. Indian is mixed with milk or water, and kneaded well till a batter is formed, then put into a bag, and boiled for six hours ; then cut in slices, and eaten with butter and molasses or sauce. A superior and wholesome dish.

Hasty Pudding.—Made by boiling salted water, and thickening it slowly as it boils, with Indian meal till stiff: makes a very valuable and pleasant article of diet, both for the healthy and the invalid; to be eaten with milk, butter, molasses, or sugar.

Samp. Hommony.—Favourite and wholesome dishes: made by hulling corn, grinding it very coarse, and boiling it till soft. The corn should be soaked over night; eat it with milk or otherwise.

Baked Indian Pudding.—Prepared by mixing milk and Indian meal together, and adding eggs and sugar; to be well baked, and eaten with butter or sauce: very palatable and healthy.

Light Corn Bread.—Stir four pints of Indian meal into three pints of warm water, add a tea-spoonful of salt, and let it rise five or six hours; knead well, and bake thoroughly.

Indian Meal Gruel.—Boil a pint of water, add a little salt, and stir in a table-spoonful of Indian meal, previously wet with cold water; boil fifteen minutes, and sweeten with sugar. Rests well on the most delicate stomach, and is very soothing and nutritious; very good when medicine is taken.

Unbolted Wheat Meal Gruel.—May be made in the same manner.

Oat and Rye Meal Gruel.—Likewise made in the same manner.

Rice.—This is a very valuable grain, and supports millions in the east. It digests well, and is very nutritious.

Boiled Rice.—The most simple and best method is, to boil rice, well washed in pure water, with a little salt till very soft. It may be eaten with milk, or with butter and molasses.

Baked Rice Pudding.—This makes a very fine dish: take a tea-cupful of rice, and as much sugar, two quarts of milk, and a tea-spoonful of salt, bake with a moderate heat for two hours. A very wholesome and rich dish.

Rice Flour may be used in various ways. A gruel made of it is excellent in all kinds of bowel complaints, with the addition of a little nutmeg and cinnamon.

Eggs.—Eggs, beat well, and milk and sugar added, are very nutritious.

Custard.—One quart of milk, five eggs, a small tea-cupful of sugar, a little salt and nutmeg; bake it at a moderate rate three-quarters of an hour.

Pastry.—Crust to be made of unbolted wheat flour, mixed with cream or with a little sal æratus, and shortened with a little butter. Lard, or any other grease, should never be used in cookery. All kinds of pies should be made with this pastry.

Cake.—Good cake may be made by taking one pint of light dough made of unbolted flour, adding half a tea-cupful of butter, a tea-cupful of sugar, three eggs, a tea-spoonful of sal æratus, and one pound of raisins. Bake one hour.

Wheat Cake.—Take three pints of wheat meal, one pint and a half of buttermilk, and a tea-spoonful of sal æratus: roll and cut into round cakes, and bake by a quick fire.

Plain Cake.—One cupful of molasses, one cupful of good cream or milk, half a tea-spoonful of pearlash, and coarse wheaten meal to make a soft paste.

Cup Cake.—Two cupsful of milk or cream, two of sugar, two of unbolted wheat meal, one of rice flour, and a tea-spoonful of salt: beat the articles well, put into cups, and bake half an hour.

Potatoes generally digest well. The mealy kinds should be used, (as the Mercer.) To boiling water add the potatoes, with a little salt, boil till a fork passes easily through them, pour off the water, and let the vessel stand by the fire till they are perfectly dry. Potatoes baked in a stove or oven are still better.

Codfish Cakes.—Soak codfish over night, separate the bones, and scald it; add to it twice its quantity of boiled potatoes, knead all well together, make them up into small cakes, and fry in butter. This is an excellent diet for the healthy and the invalid.

Buttermilk Pop.—Buttermilk, four parts; water, one part; mix: boil and thicken with Indian meal. May be made thin, and drank; or thick, and eaten with butter, sugar, or molasses. Pleasant and nourishing.

Milk Porridge.—Mix two table-spoonsful of sifted flour in three or four of water, pour it into a gill or more of boiling water, and stir often, while it cooks eight or ten minutes; then add a pint of new milk, and let it boil again.

Arrow-root Jelly.—Stir a table-spoonful of arrow-root powder into half a cupful of cold water, pour in a pint of boiling water, let it stand five or ten minutes, and sweeten it. This is very good for infants, children, and others.

Panado.—Put a little water on the fire, with a glass of wine, some sugar, and a little grated nutmeg; boil all together a second, and add some crumbs of bread or pounded cracker, and again boil all together a few minutes.

All these dishes, with every kind of good vegetables, good butter, milk, and all kinds of fruit, rice, fresh fish, and oysters, are sufficient *in all conscience* to satisfy every reasonable person, even, I should think, a gormandizer, without including any kind of *flesh* and *grease* in the catalogue, which certainly cause disease. Hot rolls, hot biscuits, short cakes, rich puddings, flitters, doughnuts, mince pies, sausages, &c., ought never to be eaten, either by the sick or the healthy; and the stomach should never be overloaded even with the lightest kinds of diet.

DRINKS

Having treated of different kinds of food, I now treat of drinks. At the head of the list stands water as being best for general use.

Cocoa.—Tea and coffee are narcotic, and it would be best to dispense with them. Cocoa is a good substitute, very pleasant, nutritious, and divested of any pernicious properties, and better than chocolate or prepared cocoa. Take cocoa-shells, a tea-cupful, add two quarts of boiling water, and boil for half an hour; then add one quart of milk, and boil a few minutes, when it is fit for use; sweeten with sugar.

Milk and Buttermilk are both good drinks where they agree. A little water and sugar or molasses may be added.

Toast Water.—Toast slowly a thin piece of bread till extremely brown and hard, but not black; then plunge it in a pitcher of cold water, and cover it an hour before using. This is very beneficial in fever, sickness of the stomach, vomiting, bowel complaints, &c.

Wine Whey.—Put half a pint of new milk on the fire; the moment it boils pour in as much good wine as will curdle and clarify it. Boil and set it aside till the curd subsides, but not stir it: pour the whey off, and add to it one pint of boiling water, and sufficient loaf sugar to sweeten it. Thus you will have a clear, rich, pleasant, and medicinal liquid, which may be drank in typhus and other fevers, debility, &c.

One physician, after he had practised most of his life, states, "If I am indebted to one thing more than another in the treatment of diseases, it is carbonate of ammonia (hartshorn) and wine whey.

Barley Water.—Take a table-spoonful of ground barley, mix it with a lit-

tle cold water, add one pint of boiling water, boil a few minutes, and sweeten. Very soothing and strengthening.

Lemonade.—Squeeze the juice out of a fresh lemon, add a large table-spoonful of loaf sugar, mix well, and add one pint of cool water. This liquid is not only very grateful and cooling in fevers, but likewise in health.

Root Beer.—Make a strong decoction of green spruce boughs and leaves, strain, and sweeten with molasses; when cool, add yeast sufficient to ferment. The second day bottle for use. Medicinal and pleasant. *See Medical Beer.*

Both food and drink should be taken rather cool, otherwise they relax and weaken the stomach.

Liquid for Dyspepsia.

Take fresh lean beef, cut thin, one pound, put it in a large-mouthed bottle or jar, add a little salt, place the vessel in a kettle of boiling water, and let it remain for one hour; then strain through a woollen cloth. There will be about one gill of a clear, nutritious liquid. Begin by taking one tea-spoonful, and increase the quantity as the stomach will bear. This has been retained on the stomach when nothing else could. It cured Capt. Sands when nearly gone with dyspepsia.

Excellent Diet for Dyspeptics and others.

Take a piece of stale wheat bread and a little white sugar, and cover with boiling water; then cover with a plate for a short time. Add cream or good milk This dish rests easy on the stomach, and is very pleasant.

Voltaire s Dish for Indigestion.

In the memoirs of Count de Segur (vol. i., p. 168) there is the following anecdote: "My mother (the Countess de Segur) being asked by Voltaire respecting her health, told him that the most painful feeling she had arose from the decay of her stomach, and the difficulty of finding any kind of aliment that it could bear. Voltaire, by way of conversation, assured her that he was once nearly for a year in the same state, and believed to be incurable; but that, nevertheless, a very simple remedy had restored him. It consisted in taking no other nourishment than yolks of eggs, beaten up with flour of potatoes and water." Though this circumstance took place as far back as about fifteen years ago, and respected so extraordinary a personage as Voltaire, it is astonishing how little it is known, and how rarely the remedy has been practised. Its efficacy, however, in cases of debility, cannot be questioned; and the following is the mode of preparing the valuable article of food, as recommended by Sir John Sinclair: *Recipe*—Beat up an egg in a bowl, and then add six table-spoonsful of cold water, mixing the whole well together; then add two table-spoonsful of the farina, (or mashed potatoes,) mixing it with the liquor in the bowl: then pour in as much boiling water as will convert the whole into jelly, and mix it well. It may be taken either alone or with the addition of a little milk, and moist or best sugar, not only for breakfast, but, in cases of great stomachic debility or in consumptive disorders, at the other meals. This dish is light, easily digested, extremely wholesome, and nourishing. Bread or biscuit should be taken with it, as the stomach gets stronger.

PART NINTH.

OUTLINES OF ANATOMY AND PHYSIOLOGY, OR MECHANISM OF THE HUMAN BODY.

Anatomy explains the nature, office, and mechanism of the human body, while physiology explains the actions and uses of the different functions. A knowledge of the system is interesting, as a branch of natural philosophy, and in some measure is useful in the practice of medicine; but too much dependance is laid upon it: many assert that it is the foundation of the healing art, which is an egregious error, since its greatest use consists in teaching us how to live in such a manner as to avoid the use of medicine. When disease becomes seated, the most minute knowledge of the system will do but very little in enabling us to remove it: all our skill, then, resolves itself into this maxim—*such a medicine removes such a pain.* I treated complaints quite as successfully before I studied anatomy as afterward; indeed it is almost proverbial, that a great anatomist is a poor practitioner, being very liable to be misled by it. A good general knowledge of the human system is desirable; and this can be acquired without those disgusting and revolting scenes which are exhibited in the lecture and dissecting rooms of our medical colleges. Plates, wax preparations, &c., are sufficient.

The "illustrious Chesselden," a great anatomist, remarks; "For all practical purposes, anatomy needs not many lectures, descriptions, nor minute dissections; what is most worth knowing is *soonest learned*, and least the subject of dispute; while dividing and *describing* the parts more than the knowledge of their uses require, perplexes the learned, and makes the science dry and difficult."

Let us have a reformation on this subject, as well as in the practice of medicine.

In treating on anatomy and physiology, I am under the necessity of being very brief, having already exceeded the contemplated limits of this work.

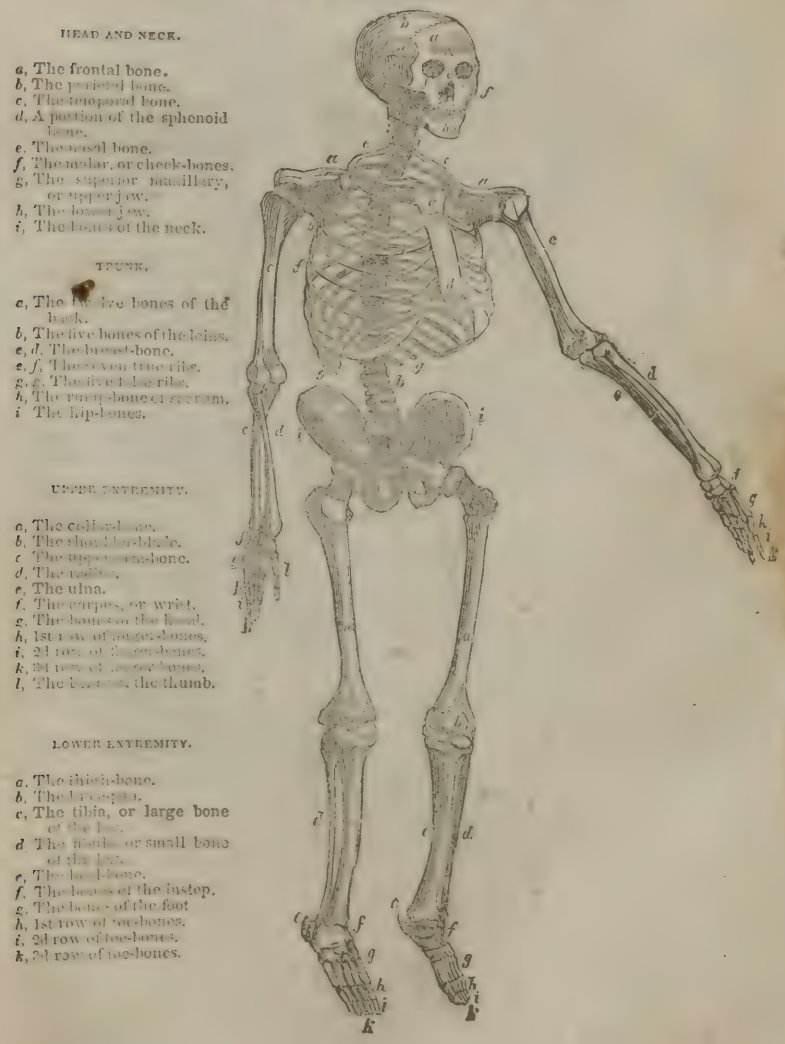
THE BONES.

The skeleton is the frame-work of the body, or that part which supports the rest and gives it firmness It may be compared to the frame of a ship; the spine or back-bone represents the keel; and the ribs, the beams of the ship, which support the other parts. The skeleton is divided into three parts; head, trunk, and extremities. The number of bones are 241, which make the body so flexible; they are of all shapes and sizes, and are composed of *earth* and *lime*, and held together by means of *gelatine*, a kind of glue. The hollow construction of the bones renders them less liable to be broken: they are covered by a dense membrane, called *periosteum*.

The bones of an infant before birth are cartilaginous; in children, soft and yielding, which prevents their injury. The manner in which bones are

formed is very curious. The blood and milk contain the materials for the formation of bone: the first mark of bony structure is an artery or blood-vessel running into the centre of the jelly in which the bone is to be formed. This artery deposites particles of bony matter, and a speck is first formed, and by a slow accession of new matter the bone is made, while another set of vessels carries away the jelly. Bones are liable to be diseased, as in rickets, white-swelling, &c. To prevent friction, the ends of the bones are

FIG. 1. A FRONT VIEW OF THE MALE SKELETON.

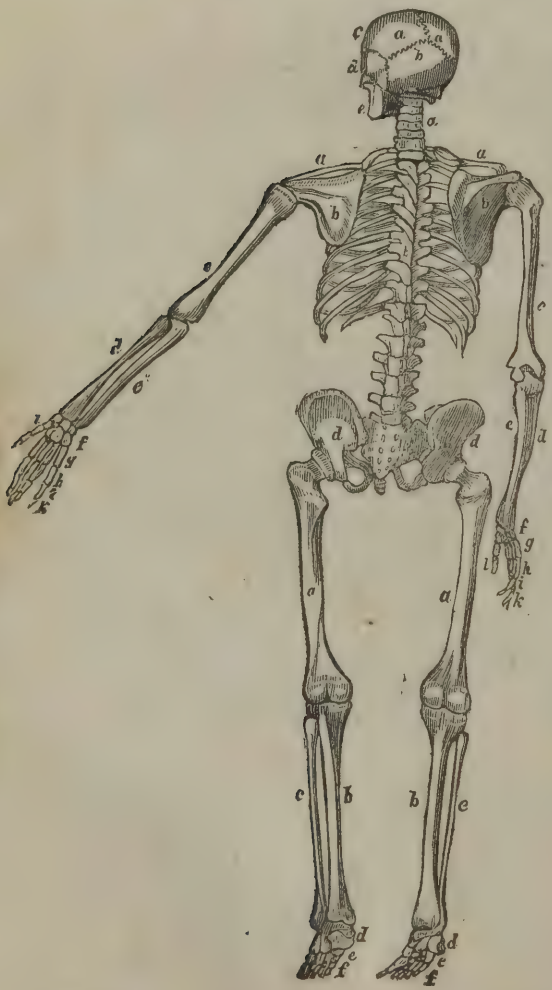


supplied with cartilage, something like India rubber, from which issues a substance called sinovial fluid, and which keeps the parts soft and causes them to move easily.

Ligaments are tough substances, which enclose and keep the joints together. Bones are supplied with arteries, veins, absorbent vessels, and nerves. There are twenty-four ribs, twelve on each side.

Tendons are short, strong cords, fastened to the ends of muscles, and then to the ends of the bones. Bones do not become perfectly hard before puberty.

Fig. 2. A Back View of the Male Skeleton.



THE HEAD.

a, The parietal bone.
b, The occipital bone.
c, The temporal bone.
d, The cheek-bone.
e, The lower jaw-bone.

NECK AND TRUNK.

a, The bones of the neck.
b, The bones of the back.
c, The bones of the loins.
d, The hip-bone.
e, The sacrum.

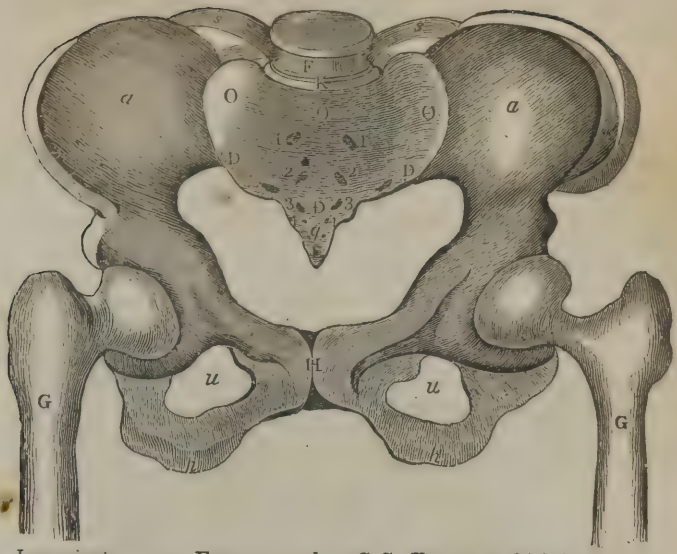
UPPER EXTREMITY.

a, The collar-bone.
b, The blade-bone.
c, The upper bone of the arm
d, The radius.
e, The ulna.
f, The bones of the wrist.
g, The bones of the hand.
h, 1st row of finger-bones.
i, 2d row of finger-bones.
k, 3d row of finger-bones.
l, The bones of the thumb.

LOWER EXTREMITY.

a, The thigh-bone.
b, The large bone of the leg.
c, The small bone of the leg.
d, The heel-bone.
e, The bones of the instep.
f, The bones of the toes.

FIG. 3. THE PELVIS.



a a, Innominate. *u u*, Foramen ovale. G G, Femur, or thigh-bone.

The Pelvis.—The office of the pelvis is, to give a steady bearing to the trunk, and to connect it with the lower extremities, by a sure and firm joining, to form the centre of all the great motions of the body, to contain the internal organs of generation, the urinary bladder, the rectum, and occasionally part of the small intestines, and to give support to the gravid uterus.

THE MUSCLES.

The muscles are that part called flesh, and such as is used for food. There are over five hundred belonging to the system, most of which are in pairs. They consist of minute threads or fibres, and are covered with sheaths to separate one from another. They are fastened to the ends of the bones by tendons, and are designed to move them in obedience to the will; also to move the fluids through the intestines and bloodvessels, sustain the body and organs, to lengthen and shorten or compress parts, as the eye, tongue, arms, legs, &c. How many hundred different positions can the body be suddenly thrown into by means of these muscles or levers, merely by willing it; for example, throw your head back, forward, to the right or left; or your fingers, arm, leg, &c. How amazing the contemplation! Other muscles are involuntary, which perform their offices independent of the will; as those of respiration, the heart, &c. Muscles are supplied with veins, arteries, lymphatics, and nerves.

How exceedingly complicated is the mechanism of our bodies! what a multitude of tubes, valves, cords, threads, and bones; all harmonizing, perfect in their action, and answering a determinate end! How calculated to excite our astonishment, and lead us to fall down in profound adoration before the great, mighty, and glorious architect, and to cry with the apostle, "great and marvellous are thy works, *Lord God Almighty!*" There are over *two hundred* bones, most admirably articulated one with another; and, to move them, there are attached more than *four hundred* muscles or cords, so sys-

tematically, carefully, and beautifully arranged and applied to the levers, that the object is perfectly accomplished without the least derangement, and at the same time symmetry of form is secured.

MEMBRANES.

These are delicate webs, that line the cavities of the bodies and enclose all the organs.

Serous Membrane.—This membrane covers and protects the various organs, as the chest, bowels, lungs, stomach, &c. It is constantly supplied with serum or water.

Mucous Membrane.—This membrane lines all the organs and internal parts, the nose, mouth, throat, windpipe, lungs, bladder, stomach, intestines, &c. It has a pale purple colour in health, but red when inflamed, as may be seen by looking into the throat when it is inflamed. It is this which secretes mucus or slime in coughs and bowel complaints.

Cellular Membrane.—This is made up of numerous little cells, which are everywhere interposed between the skin and the muscles. These are supplied with a watery vapour, and, when obstructed, constitute dropsy

THE VISCERA OR INTERNAL ORGANS.

I.—THE BRAIN.

The brain is divided into two principal parts, one called *cerebrum*, the other *cerebellum*, or, in other words, the great and little brains. Above the level of the ears all the upper portion of the skull is occupied by the cerebrum, the *seat of intellect;* below that level, in the lower and back part of the head, is the cerebellum or little brain, separated by a membrane. The brain is also divided into *lobes*, and entirely covered, externally, with a membrane, called *dura mater*, to protect it; next is the *pia mater*, which is an immense, broad, thin net of bloodvessels, which ramify through the brain to supply it with blood. The brain is so soft that, unless it were secured by a membrane, it would fall to pieces of its own weight. The *brain* is the seat of *perception* or *knowledge*, while the *heart* is the seat of the *affections*. A certain portion of the brain may be referred to the *intellectual faculties;* another to the *moral sentiments;* and a third to the *animal propensities*.

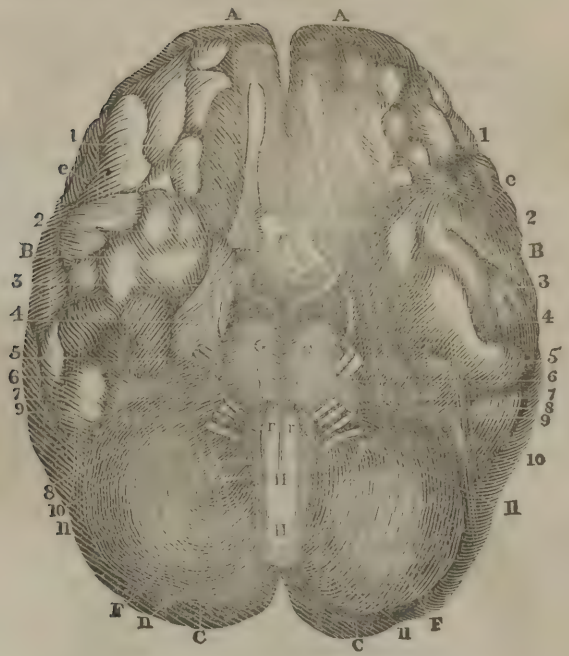
The brain in its natural state completely fills the cavity of the skull. The form which it presents is that of a spheroid elongated at the upper part, narrower at the front than behind. In the brain we observe a superior and anterior mass, called the *hemispheres*, (Fig. 4, A C, A C,) and an inferior and posterior portion, not so large, called the *cerebellum*, (F F.)

The two *hemispheres*, the one on the right side and the other on the left, are separated longitudinally and deeply by the *falx* of the *dura mater*.

Each hemisphere is divided into three portions, which are named *lobes* The anterior lobe (Fig. 4, A A) rests on the vault of the orbits, and is separated from the middle lobe by a deep furrow, (*e e.*) The middle lobe (B B) is scarcely separated from the posterior, (C C.) This last is situated partly in the internal temporal fossæ of the skull, and partly on the tentorium of the cerebellum.

On all the surfaces of the hemispheres we perceive *convolutions*, larger or smaller, and more or less projecting. They are separated from each other by winding furrows called *anfractuosities*, into which the *pia mater* descends, while the other two membranes, the *arachnoid* coat and the *dura mater*, pass directly over the convolutions, and envelope the whole brain.

FIG. 4. THE BASE OF THE BRAIN.



DESCRIPTION OF FIGURE 4.—AC AC, Are the right and left hemispheres of the brain. FF, The cerebellum. AA, The anterior lobe. *e e*, The line which denotes the separation between the anterior lobe and the middle lobe. BB, The middle lobe. CC, The posterior lobe. GG, The *Pons Varolii*, which brings the two sides of the cerebellum into communication. HH, The *medulla oblongata*. *r r*, The *corpora pyramidalia*. *s s*, The *corpora olivaria*. *t t*, The *corpora restiformia*.

1. The Olfactory nerves or first pair. Their origin is not yet demonstrated. They go through the holes in the cribriform plate of the ethmoid bone, and are distributed on the membrane which lines the nostrils.

2. The optic nerves. They pass along the side of the *thalami nervorum opticorum*, and can be traced to the *nates* of the *corpora quadrigemina*, which bear a proportion to them. This is the second pair of the anatomist. They pass through the optic holes of the sphenoid bone to the orbits.

3. Third pair or *motores oculi*. They originate from the *crura of the cerebrum* a little before the *tuber annulare*. They go through the fissure between the sphenoid bone and orbitar plate of the frontal bone to the muscles of the eyeball.

4. Fourth pair or pathetic nerves. They originate near the *corpora quadrigemina*, and pass between the middle lobes of the brain and the adjacent part of the *tuber annulare*. They go through the same fissure as the above to the *obliquus-superior* muscle of the eyeball.

5. Fifth pair of nerves, *trigeminus* or trifacial nerves. They may be traced to above the *corpora olivaria* and go to the orbits, great part of the face, and superior and inferior *maxillæ*.

6. Abductor nerve or sixth pair. They originate from a furrow between the posterior edge of the *tuber annulare* and the *corpora pyramidalia*. They go through the cavernous sinus and sphenoido-orbitar fissure to the *abductor* muscle of the eyeball.

7. Facial nerve or *portio dura*, or *sympatheticus minor*, is the second branch of the seventh pair. They pass through the aqueduct of Fallopius, to the external ear, neck, and face, and originate at the angle formed between the *Pons Varolii* and the *corpus restiforme*.

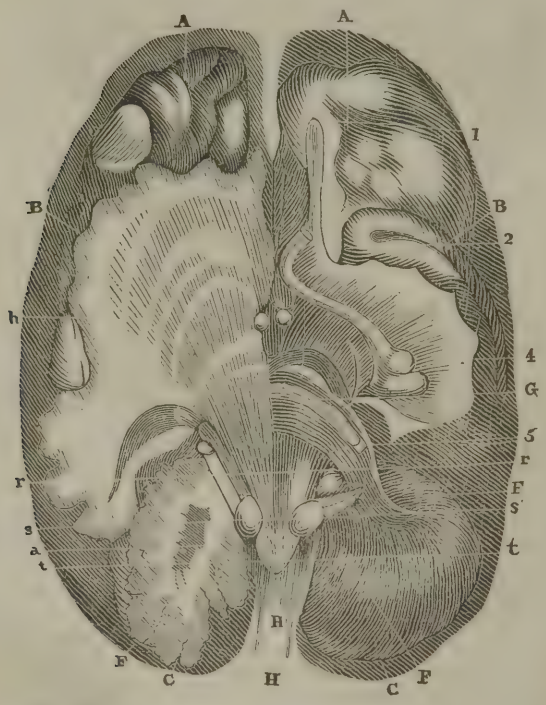
8. Auditory nerve, or *portio mollis*, first branch of the seventh pair. They go through a number of small holes within the auditory passage to all the internal parts of the ear. They come from medullary streaks on the surface of the fourth ventricle.

9. Glossopharyngeal nerve, principal branch of the eighth pair. They go to the styloid muscles, the tongue, and the pharynx.

10. Vocal nerves, or eighth pair. They originate from the base of the *corpora olivaria*. They go to the tongue, the pharynx, larynx, and lungs, and part to the stomach.

11. Spinal accessory nerves, or spinal nerves. They originate from the beginning of the spinal marrow. They go through the condyloid hole of the occipital bone to the *sterno-mastoid* and trapezius muscles.

FIG. 5. THE BRAIN SEEN AT ITS BASE, AND DISSECTED SO AS TO SHOW THE DIRECTION OF ITS FIBRES.



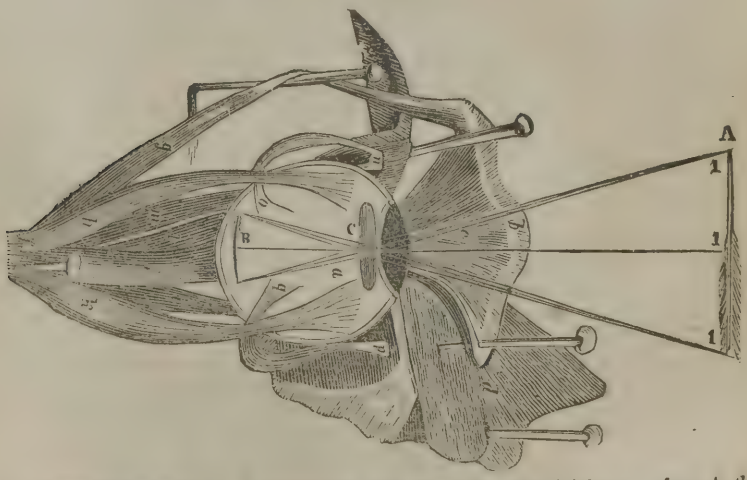
The letters refer to the same parts as in the description of Fig. 4, adding the following:
a, The *corpus dentatum*, or ganglion of the cerebellum.
h, The *corpus striatum*.

II.—THE EYE.

Several thin pieces of bone form the cavity or socket of the eye, which is shaped much like a pear, with its large end turned outward. The eye is a ball or bag, which contains a clear, thick liquid, something similar to the white of an egg. The coats of the eye answer to the brass tubes in a spy-glass; one is fitted within the other like a nest of boxes. There are three principal ones. The external coat is called *conjunctiva*. The outside of the eye is called the *sclerotic coat*, which is a thin, white membrane; it is strong, firm, and dense as leather: we call it the "white of the eye." There is an opening in the centre, where the *cornea* is set: it is placed here much like the crystal of a watch, and is clear or transparent. The cornea is very hard and firm. Beneath the *cornea* is the *choroid coat*, which is the medium for the bloodvessels. Beneath this is the *pigmentum nigrum*, called *black paint*, which it resembles, and can be easily washed off. Next is the *iris*, being the coloured circle which surrounds the pupil of the eye, and hung before the *crystalline lens*. The iris divides the liquids or humours into two parts: the one before the iris is called *aqueous* or watery humour, and the part back of the iris is the *vitreous* or glassy humour. The crystalline lens is a small body, convex on both sides, transparent, but more dense, and lies directly back of the iris, and swims, as it were, in the liquid or humour.

The following figure represents the eyeball, with its muscles, (designated by the various letters,) lens, retina, optic nerve, with the formation of an object on the retina.

FIG. 6. THE EYE



a, represents the eyeball. C, crystalline lens, where the rays of light, 111, from A, the arrow, meet like a sun-glass and diverge, or are refracted and thrown on the *retina* B, which represents the object absolutely perfect, though extremely small. *c*, the optic nerve, conveys it to the brain and gives a knowledge of the above object. How minute must the image of a man be on the retina of a humming-bird, or an insect which cannot be seen by the naked eye. 1 1 1, rays of light from an arrow, which pass through C, the crystalline lens, by which they are concentrated the same as in a sun-glass, in front, and refracted by the concavity of it on the back, and thrown on the retina B, which ought to be a little farther back. Here the object is formed. The other letters represent the different muscles of the eye.

Lastly, the *optic nerve* is expanded on the back part of the eye, and this expansion forms a membrane called the *retina*. On this all objects or images are formed, a perception of which is transmitted to the brain and mind. The rays of light pass through the cornea, aqueous humour, crystalline lens, and vitreous humour, and then fall on the retina.

The eye may be compared to a *camera obscura*, which means a dark chamber with one small hole to let in the rays of light, concentrated by a glass cut like the crystal of a watch, and thus gives a perfect picture of objects, with the exact colour. Thus the light enters the little clear window in front, called the "sight" of the eye. The "white" around it does not permit the light to enter anywhere else, and of course the inside of the eye is a dark chamber, except as it receives that little light which passes to the back-side of the hollow ball, and there forms a perfect little picture of everything toward which the eye is turned. It is smaller than you can well imagine, when you consider how perfectly every object must be represented there. Look at the page of a newspaper, and consider that every letter and point is distinctly drawn upon a surface not so large as a sixpence. Look at the carpet, or walk forth and gaze at *nature's verdant carpet* in the fields, and remember that every figure, and every blade of grass, and every flower, are all drawn on that same little spot, and you will admire the wisdom of Him who has so wonderfully furnished this beautiful little instrument. The back part of the eye is filled with glassy and watery substances, as already mentioned, which are so contrived as to reduce the images of objects to the necessary smallness, while the shape and colour are perfectly preserved.

Our sight is the most perfect and most delightful of all our senses. It fills the mind with the largest variety of ideas, converses with objects at the greatest distance, and continues the longest in action without being tired or satiated with its proper enjoyments. The sense of feeling can, indeed, give us a notion of extension, shape, and all other ideas that enter at the eye, except colours; but, at the same time, it is very much straitened and confined in its operations to the number, bulk, and distance of its particular objects. Our sight seems designed to supply all these defects, and may be considered as a most delicate and diffusive kind of touch, that spreads itself over an infinite multitude of bodies, comprehends the largest figures, and brings into our reach some of the most remote parts of the universe. It is this sense which furnishes the imagination with its ideas; so that, by the pleasures of the imagination or fancy, (which I shall use promiscuously,) I mean such as arise from visible objects, either when we have them actually in our view, or when we call up their ideas into our minds by paintings, statues, or descriptions. What would all the world be to us without the eye? Be grateful, then, to the giver, and show mercy to the blind.

III.—THE LUNGS.

The lungs are a delicate, sponge-like substance, composed of innumerable air-cells. The membrane which composes these cells is much more delicate than gauze: they are situated in the chest, by means of which we breathe. The lung in the right cavity of the chest is divided into three lobes, that in the left into two. They hang in the chest, attached at their superior part by means of the trachea or windpipe; and are also attached to the heart by means of the *pulmonary vessels*. The substance of the lungs is of four kinds, viz.: vesicular, vascular, bronchial, and parenchymatous. The vesicular substance is composed of the air-cells. The vascular invests

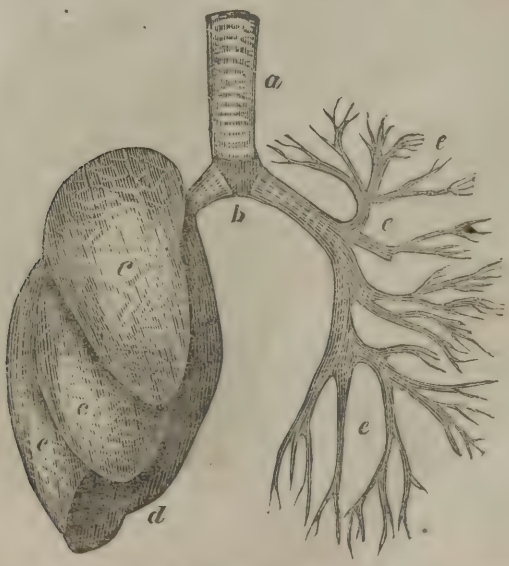
those cells like a net-work. The bronchial is formed by the ramifications of the bronchia throughout the lungs, having the air-cells at their extremities; and the spongy substance that connects these parts is termed the *parenchyma*. The lungs are covered with a fine membrane, a reflection of the pleura, called *pleura pulmonalis*. The windpipe *a*, divides into two lateral branches *b*, and forms the bronchial tubes.

The internal surface of the air-cells is covered with a very fine, delicate, and sensible membrane, which is continued from the larynx through the trachea and bronchial tubes. The arteries of the lungs carry blood to the lungs for their nourishment; and the pulmonary circulates the blood through the air-cells to undergo a certain change. The pulmonary veins return the blood that has undergone this change, into the heart. The lungs, then, may be compared to a bellows, which expands by every inspiration, by inhaling the air, and collapses by every exhalation, by forcing the air from it. It is owing, then, to the constant motion of this organ that they become more difficult to heal than other organs.

The air breathed undergoes a great change in the lungs: they throw off carbonic acid gas, which is very deleterious, and absorb oxygen or the vital part, which changes the *venous* or *black* into *arterial* or *florid blood*, and at the same time receive vital heat or electricity.

The surface of the air-cells is said to equal the whole surface of the body, which shows what a volume of air is inhaled at every breath, and the effect of good or bad air on the health. It is computed that the lungs destroy a gallon of air per minute. The air breathed is returned loaded with watery vapour, which is calculated to amount to nearly twenty ounces in a day.

FIG. 7. THE RIGHT LUNG, AND AIR-PASSAGES OF THE LEFT LUNG.



a, The trachea or windpipe. *b*, Bronchial tubes. *ccc*, Three lobes of the right lung. *d*, The inferior or concave surface of the right lung. *eee*, Air-passages of the left lung, or division and subdivision of the bronchial tubes

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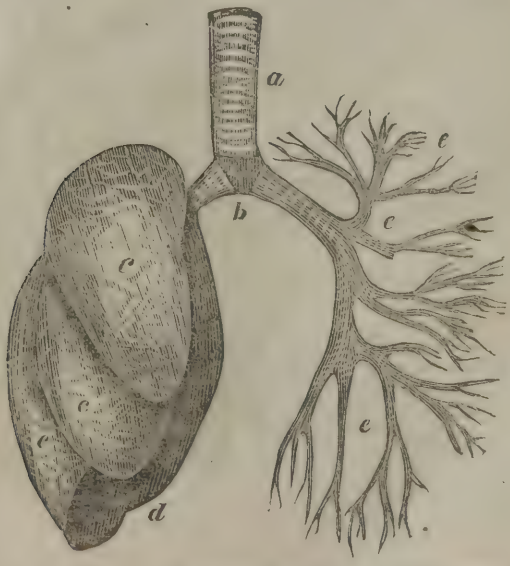
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IV.—THE HEART.

The heart is an organ situated in the left cavity of the chest, resting on the diaphragm or midriff, left of the sternum or breast-bone, between the fifth and sixth ribs. It is contained in a strong membranous sac, termed the *pericardium*, which secures it in its proper situation: it is divided into four cavities, termed the *auricles* and *ventricles*. It continually contracts and dilates, and at each pulsation throws the blood to every part of the body with amazing velocity. The number of its contractions in a single day is computed to be *one hundred thousand*.

Plato, in speaking of the heart, remarks: It is the centre or pivot of the bloodvessels; the spring or fountain of the blood which is carried impetuously around. The blood is the pabulum or food of the flesh; and, for the purpose of nourishment, the body is laid out in canals like those which are drawn through gardens, that the blood may be conveyed, as from a fountain, to every part of the body. The heart contracts, and throws the blood into the lungs to be vitalized: from the lungs it is carried back into the left side of the heart; the heart contracts, and throws this renovated blood into the arteries; by these it is carried all over the body to nourish it. After it has thus circulated all over the body, it is returned by the veins to the right side of the heart, when it is poured into the heart mixed with the chyle, again sent to the lungs, and prepared to *go the rounds*. All the blood in the body, which amounts to several gallons, passes through the heart, on its way to and from the lungs, every *four minutes*.

EXPLANATION.

q, The descending vena cava, returning black blood from the head and upper extremities.

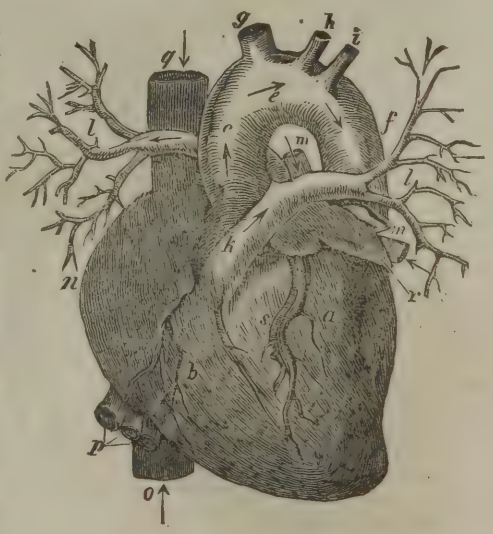
o, The ascending vena cava, returning the same kind of blood from the lower parts of the body.

n, The right auricle of the heart, where both veins meet.

p, and *x*, veins from the liver, spleen, and bowels, uniting with the inferior cava.

The auricle being filled, contracts and forces the blood into *b*, the ventricle: next the ventricle contracts and sends it to *k*, the pulmonary artery, which branches into *ll*, to supply the lungs on both sides of the chest. From the lungs, where a scarlet colour has been given it, four veins of the lungs gather it together, and deposite it in the left auricle, *r*; that contracts and the blood is driven into the left ventricle, *a*; lastly, the ventricle contracts and throws it into *c*, the aorta, which conducts it over and through every bone, muscle, and organ.

FIG. 8. THE HUMAN HEART.



Who but a fool or a lunatic, after examining the structure of the heart alone, and the circulation of the blood through it, can doubt the existence of its maker.

V.—THE STOMACH.

The stomach is a membranous muscular sac, a greater portion of which is situated in the left side of the abdomen, mostly under the diaphragm under the ribs. It reaches toward the right side, a little beyond the "pit of the stomach," as it is termed. It resembles in shape the Scotch bagpipe. The place where the food enters is called the *cardiac orifice*, and the outlet is called the *pyloric*, which closes and prevents the entrance of improper articles into the intestines. It is supplied with numerous glands, bloodvessels, and nerves. It has three coats: the external is the *peritoneal*, the second is the *muscular*, and the third and inner coat is the *mucous* or *villous*, which contains numerous absorbing and exhaling vessels, which secrete the fluids in digestion. The sympathy of the stomach with other organs renders it one of the most important parts of the body; it is the great centre of sympathy. The great *sympathetic* nerve leads from the brain to the stomach, which affects so many contiguous portions of the system when it is disordered. The stomach and liver are the two great sources or inlets of disease; as fever, indigestion, bowel complaints, &c. It is owing to this connexion with neighbouring parts that the majority of medicines are first applied to the stomach, and which benefit by their sympathetic action.

FIG. 9. THE HUMAN STOMACH.



C, Cardiac orifice or entrance. P, The pyloric orifice, or opening into the intestines. S S, Smaller arch or curvature. G G G, The great arch or curvature.

Gastric Juice.—When food is taken into the stomach the exhalent arteries secrete a fluid called *gastric juice*, which acts upon the food and reduces it to a pulpy mass. Of its nature and qualities we know but little.

Professor Silliman, in a lecture, stated that the gastric juice, which is the great agent of digestion, would pour into the stomach when any food or other substance was placed there. This juice, he said, was easily taken from the stomach; he had a bottle of it. The liquid was, at that time, apparently as pure as it was ten years ago; it had the peculiar property of self-preservation, or of resisting putrefaction. It would, if warmed to blood-heat, dissolve meat in a wine glass. He said he had never come to any satisfactory conclusions, as to its character, from his attempts in analyzing it; and he had sent a portion of it to one of the most learned and

skilful chemists of Europe, but he was able to throw but very little light on the subject. But this Professor S. said he did know, that it had no affinity with alcohol, and that they were, in their nature and attributes, totally diverse, and possessed counteracting qualities.

FIG. 10. THE INTERNAL PARTS.



H, The heart. R L, Right lung. L L, Left lung. D D, Diaphragm, which separates the chest from the bowels. Liv. Liver. Stm. Stomach. G, Gall-bladder. I I I, Intestines

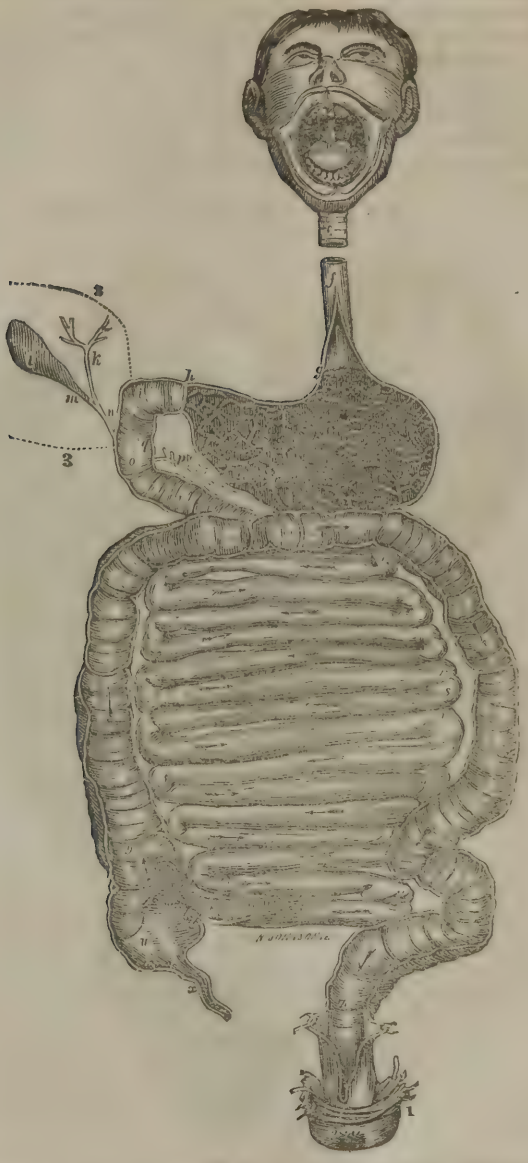
VI.—THE INTESTINES.

By the intestines is meant the whole of the alimentary canal below the stomach. They are divided into small and large. The small are subdivided into the *duodenum*, the *jejunum*, and the *ileum;* the large into the *cœcum*, the *colon*, and the *rectum*. They are coiled up, or lay in folds in the abdomen, and extend about thirty feet in length. How can all this extent be cleansed of morbid matter by "pukes" and "injections?" The coats of them are similar to those of the stomach.

The muscular coats contain *longitudinal* and *circular* fibres, which, by their contraction and relaxation, produce the vermicular or peristaltic motion, compared to the creeping of a worm. These serve to propel the contents of the intestines out of the body. The small intestines assist in the preparation of the chyle, and propel their contents toward the great intestines.

The proper uses of the intestines are to serve, 1*st*, for the performance of chylification; 2*dly*, for the absorption of the nutritive chyle; and, 3*dly*, as a resevoir for the indigestible residue of the food, and an outlet for both it and the effete matter which requires to be thrown out of the general system.

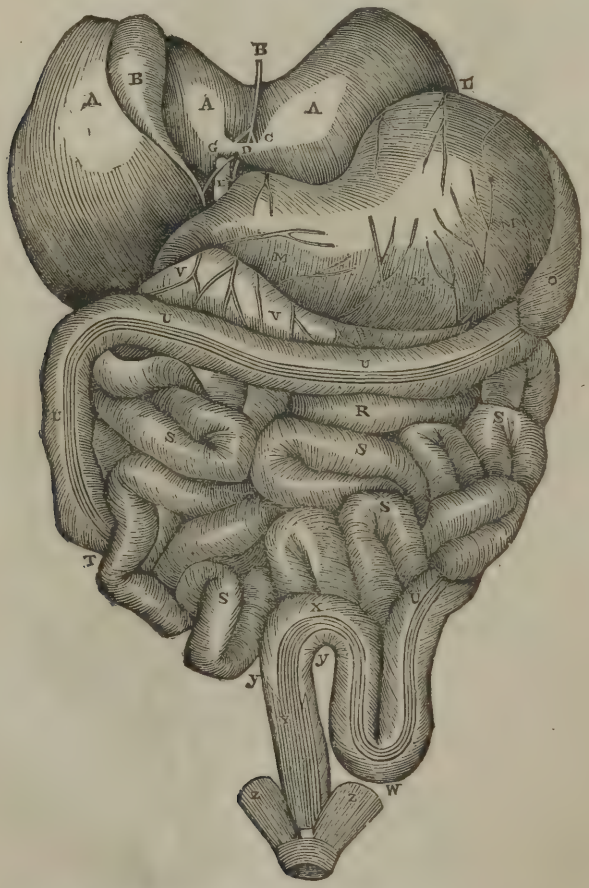
FIG. 11 THE ŒSOPHAGUS, STOMACH, AND INTESTINES.



f, Œsophagus or gullet. *i*, The stomach. *h*, The pyloric orifice, where the food enters the intestines. 3 3, External rim of the liver. *k*, The hepatic duct *m*, Cystic duct. *n*, Common duct, formed by the union of the two. *j*, Gall-bladder. The arrows represent the intestines, with the course of the food.

The *intestine* or *intestinal canal*, as represented in the subjoined figure, begins at the pyloric orifice of the stomach P, and, after many windings and turnings, called *convolutions*, (from the Latin word *convolutus*, rolled or folded together,) terminates in the *rectum* or *straight gut* Y, at the external orifice, called the *anus*. Although continuous throughout its whole extent, the intestinal tube is, nevertheless, divided by anatomists into six portions, to each of which a different name is assigned : the distinction between some of these is more nominal than real, but it still continues to be made on account of its convenience.

FIG. 12. THE INTESTINAL CANAL.



The first grand division is into the small and great intestines ; the former beginning at the stomach, including all the convolutions marked RSSSS— and the latter beginning at T, where the small intestine terminates, and including the large gut UUUUXYY, which surrounds, and is partly hidden by, the other bowels

VII.—THE LIVER.

The liver is an organ of a deep red colour, and is the largest in the body. It is situated in the right side, under the ribs; the left lobe extends considerably toward the left side over the stomach, which produces pain in this part when the liver is diseased. The upper surface of the liver is *convex* and smooth; the lower, *concave* and uneven. It is divided into two principal lobes. The liver is thick and massy on one side, and thin on the other. It is supplied with bloodvessels, nerves, and absorbents. Its office is to prepare and secrete the bile; it serves also as a filter to the blood, to separate all impurities from it, or to refine it. We learn, then, how indispensably necessary to the health is the proper performance of this function; if diseased, it cannot purify the blood, which, if sent to the lungs, brain, and other parts in a morbid condition, may cause jaundice, consumption, insanity, &c.; and, by withholding the natural stimulus to the intestines, cause dyspepsia, piles, and other complaints.

Gall-bladder.—This is attached to the under side of the liver. It is shaped like a shot-pouch, and contains between one and two ounces of gall, which is deposited by the liver.

A long, slender pipe extends from it to the first intestine, into which it pours the bile a few inches below the pyloric orifice; the use of which is, to stimulate the intestines, and separate the chyle from the excrements.

Biliary Ducts.—The bile is secreted by the liver, and carried by a great number of small pipes to the *hepatic duct*, which unites with the *cystic* and forms the common *duct*, and conveys the bile into the intestine. One comes from the liver, the other from the gall-bladder.

Bile.—This fluid is secreted by the liver, and is commonly called the "gall." It is of a yellowish green colour, of a soapy compound or nature, very bitter, and of a peculiar smell. It is composed of *water*, *albumen*, *soda*, *phosphate of lime*, *common salt*, *phosphate of soda*, *lime*, and another peculiar substance It seems to separate the nutritious part of the food from the coarser and useless, and at the same time keeps up an action of the bowels.

Spleen.—The colour is red, something like the liver, broad as the palm of the hand, and one or two inches thick. It is in contact with the stomach on the left side. The use of it is not well understood.

Pancreas, called "sweetbread," is a glandular body, of a pale red colour, like the tongue of a dog, eight or ten inches long. It lies behind the stomach, directly across the spine. It secretes a fluid that is carried into the intestine, and aids digestion.

The pancreatic duct enters the duodenum along with the biliary duct, so that the two fluids meet at their entrance, which takes place at the first curvature of the intestine, at the distance of about one-third of its whole length from the stomach.

The bile and pancreatic juice, thus poured out together, are both requisite for the formation of chyle, and apparently modify the action of each other. The bile being somewhat of an unctuous nature, and the pancreatic juice somewhat alkaline, their union forms a kind of saponaceous compound, which is less irritating, and more easily incorporated with the chyme than pure bile.

VIII.—THE KIDNEYS.

One of these glands is placed on each side, in the loins, near the spine, a little

above the hips. Their office is to secrete the urine from the blood, which is effected by innumerable little tubes, and is then conveyed down to the bladder by two tubes called the *ureters*, which pierce it obliquely, and thus prevent its return when full or distended. Now, when this organ is weak and unable to perform its office, the gravel or stone is formed.

Fig. 13. The Kidney



This organ is composed of three substances; a cortical, which is external, and very vascular; a tubulous, which consists of small tubes; and a papillous substance, which is the innermost. The kidneys are generally surrounded with more or less adipose membrane; and they have also a proper membrane, which is closely accreted to the cortical substance.

Bladder.—This is a membranous bag, situated in the lower part of the abdomen, anteriorly, and is a receptacle of the urine, which passes off by the *urethra*.

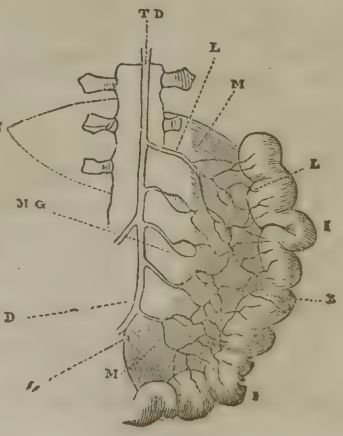
Uterus or Womb.—An organ about the size and shape of a pear, and is situated between the bladder and the rectum; which secretes the catamenial fluid, and which, when enlarged by pregnancy, often produces piles in the rectum, and irritation in the neck of the bladder, with either suppression of urine, or frequent micturition. It is suspended and kept in its place by means of ligaments.

In this organ the fœtus or infant is formed: first so small that it cannot be seen by the naked eye; and it slowly grows, being nourished by the blood derived from the mother through the umbilical cord or navel-string, till in nine months the womb contracts and expels it.

IX.—THE LACTEALS.

These are clear, delicate vessels, which arise from the mucous coat of the small intestines, passing in their course through small glands, and terminate in the *thoracic duct*. Their office is to absorb the milky fluid or chyle from the food, and to convey it from the intestines to the blood.

Fig. 14. The Lacteals.



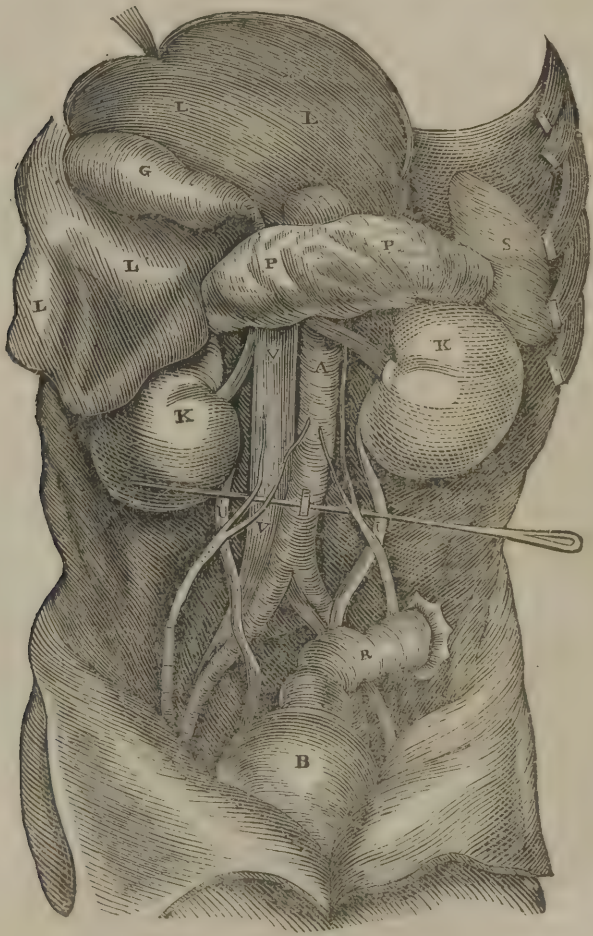
Lymphatics take up fluids from different cavities and parts of the body, and convey them into the circulation.

L L, milk vessels or lacteals. T D, commencement of the thoracic duct. M G, mesenteric gland, through which the chyle passes. S, a portion of the spine.

The lacteal vessels are most easily seen an hour or two after a meal; because they are then fully distended with chyle, even in their smaller branches. The latter, indeed, may then be distinctly traced proceeding from the different por-

tions of intestine, and gradually coalescing into larger trunks, as seen at LL in fig. 14.

FIG. 15. CONTENTS OF THE ABDOMEN AFTER REMOVAL OF THE INTESTINES.



The letters L L L L point out the inferior surface of the liver, a little raised from its natural position, to show the gall-bladder G, and the pancreas P P, round the right end of which the duodenum is curved. S indicates the spleen, with a vacant space over it, in which the stomach lies. The kidneys K K lie one on each side of the spine; and the two pipes U U are the ureters, which convey the urine into the bladder. V V, vena cava. R, rectum. B, bladder. P P, pancreas or sweetbread.

DIGESTION.

"When the food is received into the stomach, it is there subjected to the action of a solvent fluid, called the *gastric* or *stomach juice*, by which it is gradually converted into a soft, grayish, and pultaceous mass, called *chyme;* whence the process is called *chymification*, or *chyme-making*. The chyme, as fast as it is formed, is expelled by the contractile power of the stomach into the *duodenum*, (from *duodenus*, consisting of twelve, because it is supposed to be about twelve inches long,) or first portion of the intestines. It there meets with the *bile* from the liver, and with the *pancreatic juice*, which very much resembles the saliva, from the *pancreas* or *sweetbread*. By the action of these two fluids the chyme is converted into two distinct portions—a milky white fluid named *chyle*, and a thick yellow residue. This process is called *chylification*, or *chyle-making*. The chyle is then sucked in by absorbent vessels, extensively ramified on the inner membrane or lining of the bowels, and sometimes named, from the white colour of their contents, *lacteals*, or *milk-bearers*, (from *lac*, milk.) These lacteals ultimately converge into one trunk, named the *thoracic duct* or *chestpipe*, (from its course lying through the *thorax* or *chest*,) and which terminates in the great vein under the clavicle or collar-bone, hence called *subclavian* vein, just before the latter reaches the right side of the heart; and there the chyle is poured into the general current of the venous blood.

"But, although thus mingled with the blood, the chyle is not yet sufficiently capacitated for its duties in the system. To complete its preparation, it still requires to be exposed to the action of the air during respiration. This is accordingly done by its passing through the lungs along with the dark or venous blood, which stands in need of the same change. In the course of this process both the chyle and the venous blood are converted into red, arterial, or nutritive blood, which is afterward distributed by the heart through the arteries, to supply nourishment and support to every part of the body. Hence the change which takes place in the lungs is properly enough named *sanguification*, or *blood-making*.

"The thickish yellow residue left in the *duodenum* after the separation of the chyle from the chyme, is that portion of the food which affords no nourishment, and which, after traversing the whole length of the intestinal canal, and undergoing still farther change, is thrown out of the body in the shape of *fæces* or excrement. But in this course its bulk is increased and its appearance changed, by the addition of much waste matter, which, having already served its purposes in the system, is at last thrown out by the same channel."

A series of experiments has been instituted by Dr. Beaumont, of the American army, on the person of Alexis St. Martin, a young Canadian, eighteen years of age, which shows the nature of digestion more clearly than has ever before been. He was accidently wounded by a gun on 6th June, 1822. "The charge," says Dr. Beaumont, "consisting of powder and duck-shot, was received in the left side, and blew off the integuments to the size of a man's hand, breaking some of the ribs, lacerating the lower portion of the left lung, and penetrating the stomach. On the fifth day sloughing took place; portions of the lung, bones, and stomach separated, leaving an opening in the latter large enough to admit the whole length of the finger into its cavity; and also a passage into the chest half as large as his fist. After one year the wound closed, leaving the orifice into the stomach, which remained open two and a half inches in circumference. For

some months the food could be retained, only by wearing a compress; but finally a small fold of the villous coat of the stomach began to appear, which gradually increased till it filled the aperture and acted as a *valve*, so as completely to prevent any efflux from within, but to admit of being easily pushed back by the finger from without."

Here, then, was a good opportunity for making experiments on digestion, which was improved by the ingenious Dr. Beaumont with zeal and perseverance, and by which he has thrown much light on this interesting subject.

The first disputed point which is conclusively settled by Dr. Beaumont is, that the *gastric juice does not continue to be secreted between the intervals of digestion, and does not accumulate to be ready for acting upon the next meal.* Dr. Beaumont could easily observe what changes occurred, both when food was swallowed in the usual way, and when it was introduced at the opening left by the wound. Accordingly, on examining the surface of the villous coat with a magnifying-glass, he perceived an immediate change of appearance ensue whenever any food was brought into contact with it. The coat of the stomach changed from a pale pink to deeper red, the worm-like motions of the stomach became excited, and from innumerable little lucid points could be seen distilling a pure, colourless, and slightly viscid fluid, called the *gastric juice*, which mixed with the food. In the course of his attendance on St. Martin he found that, whenever a feverish state ensued, whether from obstructed perspiration, from undue excitement by stimulating liquors, from overloading the stomach, or from fear, anger, or other mental emotion depressing or disturbing the nervous system, the villous coat of the stomach became sometimes *red* and *dry*, and at other times *pale* and *moist*, and lost altogether its *smooth* and *healthy appearance*. As a necessary consequence, the usual secretions became vitiated, impaired, or entirely suppressed. When these diseased appearances were considerable, the system sympathized, and dryness of the mouth, thirst, fever, and other symptoms showed themselves; and no gastric juice could be procured or extracted even on the application of the usual stimulus of food. This experiment shows why the stomach, in fever and other complaints, instinctively refuses much of any food. To test the solvent powers of the gastric juice, Dr. Beaumont withdrew from St. Martin's stomach about one ounce of it, obtained after fasting seventeen hours, by introducing first a thermometer to induce the secretion, and then a tube to carry it off. Into this quantity, placed in a vial, he introduced a piece of *boiled salted beef*, weighing three drachms. He then corked the vial tightly, and immersed it in water raised to the temperature of 100°, which he had previously ascertained to be the heat of the stomach. In *forty minutes* digestion had commenced on the surface of the beef. In *fifty minutes* the fluid became quite opaque and cloudy, and the texture of the beef began to loosen and separate. In *sixty minutes* chyme began to be formed. In *one hour and a half* the muscular fibres hung loose and unconnected, and floated about in shreds. In *three hours* they had diminished about one-half. In *five hours* only a few remained undissolved. In *seven hours* the muscular texture was no longer apparent; and in *nine hours* the solution was completed.

To compare the progress of digestion in the natural way with these results, Dr. Beaumont, at the time of commencing the above experiment, suspended a piece of the same beef, of equal weight and size, within the stomach by means of a string. At the end of the *first half hour* it presented the same appearances as the piece in the vial; but when Dr. Beaumont drew

out the string at the end of *an hour and a half*, the beef had been completely digested and disappeared, making a difference of result in point of time of nearly seven hours.

Having thus obtained a brief view of the agent employed in digestion, and of the changes produced by it on different kinds of food, we proceed to mention the comparative digestibility of different kinds of food. These experiments were performed somewhat in a vague manner, some things having been omitted which are known to exert a powerful influence on digestion.

The following table exhibits the general results of all the experiments made upon St. Martin posterior to 1825; and the average is deduced from those which were performed when the stomach was considered by Dr. Beaumont to be in its natural state, and St. Martin himself subjected to ordinary exercise.

TABLE showing the Mean Time of Digestion of the different Articles of Diet.

Articles of Diet.	Mode of Preparation.	Time required for Digestion.
		H. M.
Rice	Boiled	1
Pig's feet, soused	Boiled	1
Tripe, soused	Boiled	1
Eggs, whipped	Raw	1 30
Trout, Salmon, fresh	Boiled	1 30
Trout, Salmon, fresh	Fried	1 30
Soup, barley	Boiled	1 30
Apples, sweet and mellow	Raw	1 30
Venison steak	Broiled	1 35
Brains	Boiled	1 45
Sago	Boiled	1 45
Tapioca	Boiled	2
Barley	Boiled	2
Milk	Boiled	2
Liver, beef's, fresh	Broiled	2
Eggs, fresh	Raw	2
Codfish, cured, dry	Boiled	2
Apples, sour and mellow	Raw	2
Cabbage, with vinegar	Raw	2
Milk	Raw	2 15
Eggs, fresh	Roasted	2 15
Turkey, wild	Roasted	2 18
Turkey, domestic	Boiled	2 25
Gelatine	Boiled	2 30
Turkey, domestic	Roasted	2 30
Goose	Roasted	2 30
Pig, sucking	Roasted	2 30
Lamb, fresh	Broiled	2 30
Hash, meat and vegetables	Warmed	2 30
Beans, pod	Boiled	2 30
Cake, sponge	Baked	2 30
Parsnips	Boiled	2 30

TABLE showing Mean Time of Digestion—CONTINUED.

Articles of Diet.	Mode of Preparation.	Time required for Digestion. H.	M.
Potatoes, Irish	Roasted	2	30
Potatoes, Irish	Baked	2	30
Cabbage, head	Raw	2	30
Spinal marrow	Boiled	2	40
Chicken, full grown	Fricassee	2	45
Custard	Baked	2	45
Beef, with salt only	Boiled	2	45
Apples, sour and hard	Raw	2	50
Oysters, fresh	Raw	2	55
Eggs, fresh,	Soft boiled	3	
Bass, striped, fresh	Broiled	3	
Beef, fresh, lean, rare	Roasted	3	
Beef steak	Broiled	3	
Pork, recently salted	Raw	3	
Pork, recently salted	Stewed	3	
Mutton, fresh	Broiled	3	
Mutton, fresh	Boiled	3	
Soup, beans	Boiled	3	
Chicken soup	Boiled	3	
Aponeurosis	Boiled	3	
Cake, corn	Baked	3	
Dumpling, apple	Boiled	3	
Oysters, fresh	Roasted	3	15
Pork steak	Broiled	3	15
Pork, recently salted	Broiled	3	15
Mutton, fresh	Roasted	3	15
Bread, corn	Baked	3	15
Carrot, orange	Boiled	3	15
Sausage, fresh	Broiled	3	20
Flounder, fresh	Fried	3	30
Catfish, fresh	Fried	3	30
Oysters, fresh	Stewed	3	30
Beef, fresh, dry	Roasted	3	30
Beef, with mustard, &c.	Boiled	3	30
Butter	Melted	3	30
Cheese, old, strong	Raw	3	30
Soup, mutton	Boiled	3	30
Oyster soup	Boiled	3	30
Bread, wheaten, fresh	Baked	3	30
Turnips, flat	Boiled	3	30
Potatoes, Irish	Boiled	3	30
Eggs, fresh	Hard boiled	3	30
Eggs, fresh	Fried	3	45
Green corn and beans	Boiled	3	45
Beet	Boiled	4	
Salmon, salted	Boiled		

TABLE showing Mean Time of Digestion—CONTINUED.

Articles of Diet.	Mode of Preparation.	Time required for Digestion.
		H. M.
Beef, fresh, lean	Fried	4
Veal, fresh	Broiled	4
Fowls, domestic	Boiled	4
Fowls, domestic	Roasted	4
Ducks, domestic	Roasted	4
Soup, beef, vegetables, and bread	Boiled	4
Heart, animal	Fried	4
Beef, old, hard, salted	Boiled	4 15
Pork, recently salted	Fried	4 15
Soup, marrow bones	Boiled	4 15
Cartilage	Boiled	4 15
Pork, recently salted	Boiled	4 30
Veal, fresh	Fried	4 30
Ducks, wild	Roasted	4 30
Suet, mutton	Boiled	4 30
Cabbage, with vinegar	Boiled	4 30
Suet, beef, fresh	Boiled	5 3
Pork, fat and lean	Roasted	5 15
Tendon	Boiled	5 30

This table is very interesting, but the results must not be too much relied upon, or regarded as representing the *uniform* rate of digestibility. We have already seen that chymification is greatly influenced by the interval which has elapsed since the preceding meal, the amount of exercise taken, the keenness of the appetite, the state of the health and mind, the completeness of the mastication, the state of rest or exercise after eating, and various other circumstances; and, above all, *the quantity swallowed in proportion to the gastric juice secreted.* And, consequently, if an experiment be made without regard to these conditions, and without anything being recorded except the time occupied in digestion in the individual case, the conclusions deduced from it may be most fallacious. The very aliment which, taken in full quantity, remains on the stomach for hours, may, in a smaller quantity, be entirely digested in one-third of the time. Thus, in the foregoing table, two and a half hours are set down as the average time required for the chymification of jelly; and yet, in one of his experiments, we find that eight ounces of that substance were entirely digested in ONE hour. So that, if all the other conditions are not carefully kept in view at each trial, the results cannot possibly be held as conclusive.

As a general rule, animal food is more easily and speedily digested, and contains a greater quantity of nutriment in a given bulk, than either herbaceous or farinaceous food; but, apparently from the same cause, it is also more heating and stimulating. *Minuteness of division* and *tenderness of fibre* are shown by Dr. Beaumont's experiments to be two great essentials for the easy digestion of butcher-meat; and the different kinds of fish, flesh, fowl, and game are found to vary in digestibility chiefly in proportion as they approach or depart from these two standard qualities.

Farinaceous food, such as rice, sago, arrow-root, and gruel, are also rapidly assimilated, and prove less stimulating to the system than concentrated animal food. Milk seems to rank in the same class, when the stomach is in a healthy state.

Says Combe; "Many persons imagine that spirits, taken in moderate quantity, and improper quality and quantity of food, cannot be injurious, *because they feel no immediate bad effects from their use.* If the fundamental principle which I have advanced is sound, and if all the functions of the system are already vigorously executed *without* the aid of spirits, their use can be followed by only one effect—*morbid excitement;* and it is in vain to contend against this obvious truth. The evil attending their use may not be *felt* at the moment, but, nevertheless, it is there; and, for demonstrative proof of the fact, we are again indebted to Dr. Beaumont. On examining St. Martin's stomach after he had been indulging freely in ardent spirits for several days, Dr. Beaumont found its mucous membrane covered with inflammatory *and aphthous* (ulcerous) *patches*, the secretions vitiated, and the gastric juice diminished in quantity, viscid and unhealthy; although St. Martin still *complained of nothing*, not even of impaired appetite. Two days later, when the state of matters was aggravated, '*the inner membrane of the stomach was unusually morbid, the inflammatory appearance more extensive, the spots more livid than usual; from the surface of some of them exuded small drops of grumous blood; the aphthous patches were larger and more numerous, the mucous covering thicker than common, and the gastric secretions much more vitiated. The gastric fluids extracted were mixed with a large proportion of thick, ropy mucus, and a considerable muco-purulent discharge slightly tinged with blood, resembling the discharge from the bowels in some cases of dysentery.* Notwithstanding this diseased appearance of the stomach, no very essential aberration of its functions was manifested. St. Martin complained of no symptoms indicating any general derangement of the system, except an uneasy sensation and a tenderness at the pit of the stomach, and some vertigo, with dimness and yellowness of vision, on stooping down and rising again; had a thin yellowish-brown coat on his tongue, and his countenance was rather sallow; pulse uniform and regular, appetite good; rests quietly, and sleeps as usual.'

"I have marked part of this quotation in italics, because it cannot be too attentively considered by those who contend that the stimulus of spirits is not injurious to the stomach or general health, unless where the mischief shows itself by palpable external signs. Here we have incontestible proof, that disease of the stomach was induced, and going on from bad to worse, in consequence of indulgence in ardent spirits, although no prominent symptom made its appearance, and St. Martin was in his general habits a healthy and sober man. And if such be the results of a few days of intemperance in a person of a sound constitution, it is impossible to deny that continued indulgence must be followed by more serious evils, whether these show themselves from the first by marked external signs or not.

"After a few days of low diet and the use of mild diluents, the coats of St. Martin's stomach were seen to resume their healthy appearance; the secretions became natural, the gastric juice clear and abundant, and the appetite voracious. Dr. Beaumont adds, that, in the course of his experiments, diseased appearances of a similar kind were frequently observed—generally, but not always, after some appreciable cause 'Improper indulgence in eating and drinking has been the most common precursor of these diseased conditions of the coats of the stomach. *The free use of ardent spirits, wine, beer, or any intoxicating liquor, when continued for some days, has invariably*

produced these morbid changes. Eating voraciously or to excess, swallowing food coursely masticated or too fast,' 'almost invariably produce similar effects, if repeated a number of times in close succession.' These observations require no comment; their practical bearing must be obvious to all who are willing to perceive it.

"Dr. Beaumont had also frequent occasion to remark, that, when stomachic disorder, attended with febrile symptoms, was present, the mucous coat of the stomach presented distinct appearances of disease. It was red, irritable, and dry. Anger and violent emotions of the mind often produce these appearances.

"The condition of the stomach above described, and the consequent failure and vitiation of the gastric secretion, induced by drinking ardent spirits, and by general intemperance, explain at once the miserable digestion and impaired appetite of the habitual drunkard; and it would be well for those who are in danger of becoming the victims of the habit, were they early impressed with some of these striking and important truths.

"If it be asked whether I go the length of proscribing all fermented liquors, from table beer upward, I answer that I do not; I merely mean that, where the general health is perfect without them, they ought not to be taken, because then their only effect is to produce unnatural excitement. But wherever the constitution or health is so deficient, or the exertions required by the mode of life are so great, that the system cannot be sustained in proper vigour without some additional stimulus, I would not only sanction, but recommend the use of either wine or such other fermented liquor as should be found by experience to support the strength, *without quickening the circulation, exciting the mind, or disordering the digestive functions.* If, however, any of these effects be produced, I would consider its occurrence as a proof that the stimulus is inappropriate, and cannot be too soon discontinued, or at least diminished to such a quantity as shall be consistent with the ordinary action of the animal functions.

It may be alleged that a glass of brandy after a heavy dinner facilitates digestion, and, therefore, cannot do harm. I admit at once, that, when we eat too much, or fill the stomach with indigestible food, a dram of brandy, from its temporary stimulus, enables us to get rid of the load sooner than we could do without it. But it seems to me that a far wiser plan would be, to abstain from eating what we know to be oppressive to the stomach; and that by this means we shall attain our end infinitely better than by first eating a heavy meal, and then taking a stimulus, the efficacy of which is diminished by every repetition of its use. If we were *compelled* to exceed the bounds of moderation in eating, there would be some apology for our conduct.

INFERENCES FROM DR. BEAUMONT'S EXPERIMENTS AND OBSERVATIONS.

1. That *hunger* is the effect of *distention* of the vessels that secrete the gastric juice.

2. That the process of *mastication*, *insalivation*, and *deglutition*, in an abstract point of view, do not in any way affect the digestion of the food; or, in other words, when food is introduced directly into the stomach in a finely divided state, without these previous steps, it is as readily and as perfectly digested as when they have been taken.

3. That *saliva* does not possess the properties of an alimentary solvent.

4. That the *agent* of chymification is the *gastric juice*.

5. That the pure gastric juice is fluid, *clear and transparent;* without *odour;* a little salt; and perceptibly *acid*.

6. That it contains free *muriatic acid*, and some other active *chemical* principles.

7. That it is never found *free* in the gastric cavity; but is always excited to discharge itself by the introduction of *food* or other irritants.

8. That it is secreted from vessels distinct from the mucous follicles.

9. That it is seldom obtained pure, but is generally mixed with mucus, and sometimes saliva. When pure it is capable of being kept for months, and perhaps for years.

10. That it *coagulates* albumen, and afterward *dissolves* the *coagulæ*.

11. That it *checks* the progress of putrefaction.

12. That it acts as a *solvent* of food, and alters its properties.

13. That, like other chemical agents, it *commences* its action on food as soon as it comes in contact with it.

14. That it is capable of combining with a certain and fixed *quantity* of food, and when more aliment is presented for its action than it will dissolve, disturbance of the stomach, or "indigestion," will ensue.

15. That its action is facilitated by the *warmth* and *motions* of the stomach.

16. That it becomes intimately *mixed* and *blended* with the ingestæ in the stomach by the motions of that organ.

17. That it is *invariably* the *same substance*, modified only by *admixture* with other fluids.

18. That the motions of the stomach produce a constant *churning* of its contents, and *admixture* of food and gastric juice.

19. That these motions are in two directions, *transversely* and *longitudinally*.

20. That *no other* fluid produces the same effect on food that gastric juice does; and that it is the *only solvent of aliment*.

21. That the action of the stomach and its fluids is the same on *all kinds* of diet.

22. That *solid* food, of a certain texture, is easier of digestion than *fluid*.

23. That *animal* and *farinaceous* aliments are more easy of digestion than *vegetable*. (But flesh is more stimulating, and, consequently, less healthy.)

24. That the susceptibility of digestion does not, however, depend altogether upon *natural* or *chemical* distinctions.

25. That digestion is facilitated by *minuteness of division* and *tenderness of fibre*; and retarded by opposite qualities.

26. That the *ultimate principles* of aliment are always the same, from whatever food they may be obtained.

27. That *chyme* is *homogeneous*, but variable in its *colour* and *consistence*.

28. That, toward the *latter* stages of chymification, it becomes more *acid* and *stimulating*, and passes more rapidly from the stomach.

29. That the *inner coat* of the stomach is of a pale *pink* colour, varying in its hues according to its full or empty state.

30. That, in health, it is sheathed with mucus.

31. That the appearance of the interior of the stomach *in disease* is essentially different from that of its *healthy* state.

32. That stimulating *condiments* are injurious to the healthy stomach.

33. That the use of *ardent spirits always* produces disease of the stomach if persevered in.

34. That *water*, *ardent spirits*, and most other *fluids*, are not affected by the gastric juice, but pass from the stomach soon after they have been received.

35. That the *quantity* of food generally taken is more than the wants of the system require; and that such excess, if persevered in, generally produces, not only functional aberration, but disease of the coats of the stomach.

36. That *bulk* as well as *nutriment* is necessary to the articles of diet.

37. That *bile* is not ordinarily found *in the stomach*, and is *not* commonly *necessary* for the digestion of the food ; but,

38. That, when *oily* food has been used, it assists its digestion.

39. That *oily* food is difficult of digestion, though it contains a large proportion of the nutrient principles.

40. That the *digestibility* of aliment does not depend upon the *quantity* of nutrient principles that it contains.

41. That the natural temperature of the stomach is about 100° Fahrenheit.

42. That the temperature is *not elevated* by the ingestion of food.

43. That *exercise elevates* the temperature ; and that *sleep* or *rest*, in a recumbent position, *depresses* it.

44. That *gentle exercise* facilitates the digestion of food.

45. That the time required for that purpose is various, depending upon the quantity and quality of the food, state of the stomach, &c. ; but that the time ordinarily required for the disposal of a moderate meal of the fibrous parts of meat, with bread, &c., is from three to three and a half hours.

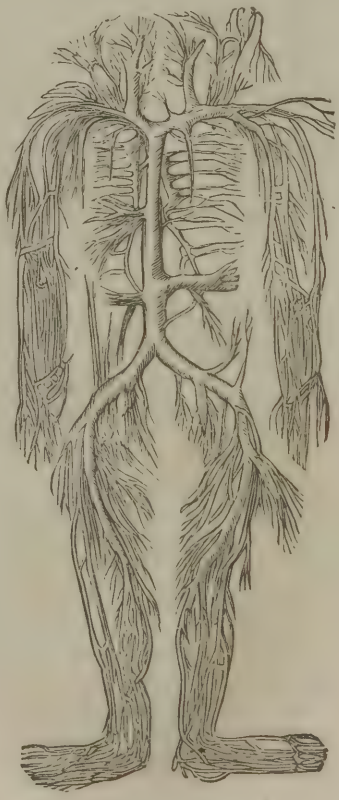
THE ARTERIES.

Arteries are strong, elastic, membranous tubes, which arise from the heart

Fig. 16. Arteries.



Fig. 17. Veins.



by two trunks, and convey the blood, by their innumerable branches, to every part of the body. They have three coats.

THE VEINS.

After the blood has thus been carried to every part of the system by the arteries, the latter terminate in small vessels called *capillaries*, because they resemble hairs, being so extremely small; in reality, they are smaller than hairs. These form the intermediate link between the *arteries* and the *veins*. The veins take their rise from these, and return the blood to the heart.

THE BLOOD.

A red fluid, of a saltish taste and urinous smell, which circulates in the heart, arteries, and veins. It is the most important fluid in the body. It is the source of heat, and furnishes materials from which all the parts of the body are supplied. Strength, health, and life depend upon it, and the loss of a small quantity often deranges the system. It stimulates the heart to contraction. In the arteries it is of a crimson color; in the veins of a dark color, and is changed in its passage through the lungs.

THE NERVES.

These are contractile bundles of white cords, the ends connected to the brain or spinal marrow, and thence expanded over the whole body, to receive impressions from external objects, or to convey muscular motion. There are two pair issuing out of each side of the spine, and thence to every part of the body, so that you cannot touch any part of the skin with the point of a pin without coming in contact with a *nerve* and a *bloodvessel*. The great *sympathetic* nerve is the most important of all. The main trunk of it communicates with all of the spinal nerves, and several of those of the brain. It presides over all the organs which are affected independent of the will.

THE SKIN.

The skin is a smooth, delicate, external membrane, which lines the whole body, and forms the most beautiful covering. It is the last stroke of the great artist, which gives the finishing touch and makes the *form divine*. It is very superficial; and without it, or if removed, the most disgusting or revolting spectacle would be presented: hence it is said that "*beauty is only skin deep*." First is the scarf skin, being the exterior part; insensible and rough. It is this which is raised in blisters: it is constantly wearing off, and as often renewed. Next to this is a very thin layer of paste, called *rete mucosum*, and on this depends the colour. In the African, this membrane or paste is *jet black;* in the Indian, *copper coloured;* in the Spanish, *yellow;* and in our race, *white*, which is ridiculed in Africa as being pale and *homely*, they considering their colour the standard of beauty. What will not education do! Then, as this coat makes the difference of colour in the human family, it should not form the criterion of moral character or worth; but it should be merit or demerit, or, in other words, *virtue*. The third and last coat is the *true skin*, which is thicker than the others, and lays next to the muscles. It is freely supplied with bloodvessels and nerves. The colour of this membrane, the true skin, is nearly the same in all races of men, being as white in the negro as in the European.

The skin is a most important function in the animal economy Two-thirds of the fluids taken into the system pass off by the skin. It has an infinite number of pores, which are designed to carry off extraneous and hurtful fluids from the blood; and hence, when they are obstructed, so many diseases follow; by a knowledge of which we learn the true remedy, viz., to *restore its secretion*, and eliminate the poison. It is owing to this physiological view of it that we are led to bathe thoroughly the whole surface with stimulating or cleansing liquids in fever and other diseases, and which is followed by the most signal benefit. I am now attending a very obstinate case of *remittent fever*, fast recovering by bathing the body with an alkaline wash, and giving a warm tea of *catnip* immediately after. The most happy effects follow; a moisture usually breaks out, with a mitigation of all the symptoms. The stomach, liver, and bowels being disordered, I have given every other morning a small tea-spoonful of *rhubarb*. It has removed the weakness of the bowels, and a congested state of the liver, and at the same time operated as a *tonic*. In such cases *rhubarb is the best purgative*.

THE TEMPERAMENTS.

There are four of these: 1*st*, The *lymphatic*, in which there is easily seen a full, soft, and rounded form, and languid action.

2*d*, The *sanguine*, in which there is a florid complexion, expanded chest, and general vivacity of disposition, showing the preponderance of the vascular system, known generally by the term of plethoric or full habit, the circulation of the blood being very full and strong.

3*d*, The *bilious*, in which the muscular system predominates. The body is remarkable for a compactness of fibre, indicative of strength and activity.

4*th*, The *nervous*, in which there is a thin, sharp outline, irregular and vivacious activity, and great susceptibility of impressions, and which betoken the predominance of the nervous over all the other functions

The following figures represent the different temperaments:

FIG. 18. LYMPHATIC.



FIG. 19. SANGUINE.



FIG. 20. BILIOUS.



FIG. 21. NERVOUS.



The *temperament* of the author is decidedly the latter, viz., *nervous;* and, while it has enabled him, under *Divine Providence*, to push his favourite pursuit, MEDICAL REFORM, it has been necessarily attended with great *mental* suffering.

REFLECTIONS.

Look at the mechanism of the system, the brain, eye, lungs, heart, liver, and other organs, the circulation of the blood, the arteries, veins, nerves, and absorbents; in short, any part of the body: see how wonderful, yea, how marvellous. If it has been said that "an undevout astronomer is mad," should we not rather say, or with equal propriety, that an undevout anatomist is mad?

Contrasting the system above us with the anatomy of the human frame, we grant to this lofty canopy a grander aspect; its amplitude, its sublimity. But, in delicate symmetry, in exquisite adaptedness of the minutest parts, what are stars and planets compared with this human form, so fearfully and wonderfully made!

And what is that splendid frame-work, studded, indeed, with glorious constellations, to the human eye that surveys it; that, through a pin's head opening, can let into the mind this whole hemisphere, with its thousand worlds! And even the marvellous powers of the eye in vision can hardly compare with the machinery of the human voice, that can make audible report to God of the adoration, awe, and gratitude that his works inspire; and that can discourse of the feelings of the soul in the sacredness of its affections and the fulness of its joys.

The divine wisdom and skill displayed in the construction of the body, and the arrangement of its parts, their wonderful adaptation and exact conformity to a clear and settled purpose, open to us the richest stores of instruction. There is in this study the profound philosophy which, while it often amazes, always elevates and expands the mind: the wisdom shown in the adjustment of every muscle and nerve, and in the articulation of every joint, overwhelms the conception of a finite intellect; and such results are by no means injurious; they serve to reduce the loftiness of human pride; they constrain the soul to bow in submission, and, with the modesty of true science, confess its feebleness in the presence of such ineffable glory and power.

CONCLUSION.

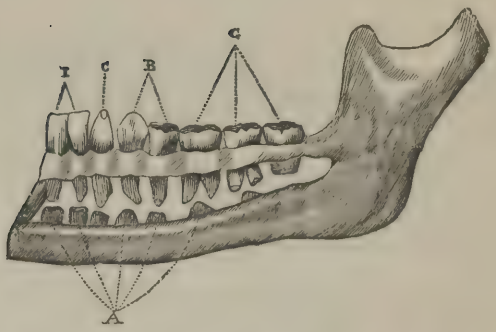
Now, in conclusion, I have to request that a few minutes be daily directed by every member of the family, male and female, to the study of anatomy and physiology, as well as to the other branches of medicine laid down in this work. The information received will soon enable them to be their own physicians, and give such a knowledge of the human system as will lead them to promote their health, and prevent the necessity of using much medicine. It will enlighten their minds in one of the most interesting branches of science, and thus banish that hydra monster, quackery, which now stalks abroad in and out of the profession, and endangers our health and life. In this manner, and this only, can we ever expect to have a *reform* in medicine: while so much ignorance prevails it is out of the question to expect a better state of things. I am confident that an emancipation from the deadly effects of *mercury*, the *lancet*, and the *knife* would be a greater blessing than was the emancipation of this country from foreign oppression and tyranny.

I have exhibited the truth of this subject to others, but I cannot believe for them, nor compel them to receive it: according to the proverb, we may lead a horse to the water, but we cannot compel him to drink.

"Truth would you teach to save a sinking land,
All shun, none aid you, and few understand."

APPENDIX.

THE TEETH.



I Represents the *incisor* or *cutting* teeth, being the eight broad and flat teeth, with a sharp cutting edge, one-half seen in front of the upper and lower jaws. C, *cuspidati*, *canine*, or *dog* teeth, being sharp-pointed, resembling those in dogs, and used by them to tear their food. B G represents the *molares* or *grinders*, twenty in number, situated at the back part of the jaw, and so called because they are used to grind or bruise the food.

Effect of the Teeth on Personal Appearance.—"The expression and general appearance of the face depend much upon the condition of the teeth. If they are perfect, regular, pure, and clean, they contribute more to beauty than any of the other features; but if neglected, diseased, or incrusted with an offensive accumulation, they excite in the beholder both pity and disgust.

"To illustrate this fact, the following picture is drawn by Mr. Pleasants, in a work written by him:

"'If the sculptor, the painter, or the poet,' says Mr. Pleasants, 'would invest the production of his genius with those forms of horror at which humanity shudders and recoils, he perfectly comprehends the art of giving to his allegorical personages an array of teeth, black with tartar, mutilated with gangrene, broken by violence, or wrested by distortion. Should Envy present herself in the group, her parted lips would disclose but a single fang. Should Malice approach to persecute his victim, his teeth would be turned away as if by the violence of his passion. Thus the wrinkled witch, the smoky gipsy, the fortune-telling hag, and the freebooter of the seas would lose the proper expression of their distinctive characters if supplied with perfect, regular, and beautiful sets of teeth.

"'On the other hand, the skilful artist, who would exhibit the amiable and worthy passions in all their loveliness and attraction, bestows untiring

ILLUSTRATIONS.

Cases cured by the Practice prescribed in this Work.

For want of room, I can insert, comparatively, but a few cases which have been successfully treated at the Infirmary connected with our Reformed Medical College and elsewhere, and these very briefly. Over *one thousand cases of Cholera* were treated during the epidemic, none of which are here given. But, perhaps, more (though a vast many would be very interesting) might be considered superfluous. The diseases were all treated according to the directions laid down in this work, although there may have been some variation in the formulas or prescriptions used. We also wish it understood, that we are not so tenacious about the precise agents or medicine employed, as we are of a strict adherance to the *theory* or principles advocated.

FEVERS.

Case 1. J. K., Goerck-street, aged 12 or 14 years, was seized with the Typhus Fever; he was so far reduced that no hopes were entertained of his recovery. Matter discharged from his eyes, ears, and nose; he was exceedingly emaciated. The treatment pursued at the Infirmary restored him to health, contrary to the expectations of every one. Neither bleeding, calomel, or any other mineral was used.

Case 2. The daughter of the late M. Nash, school teacher, aged about 15, had the same complaint (Typhus Fever), and was brought extremely low with it. Soon after she commenced the use of our medicine, she grew better, and soon entirely recovered. Her case was considered extremely dangerous.

Case 3. Mr. Boardman, of the firm of Boardman & Co., Water-street, was taken with a Bilious Remittent Fever so severely, that he was scarcely able to articulate a single sentence. Excessive debility, violent fever, more or less delirium, and all his symptoms highly aggravated. Instead of bleeding and administering mercury, medicine was given to produce perspiration, which was continued until the fever was subdued. His sudden recovery was a subject of remark by all who saw him.

Case 4. Mr. Vankirk, Forsyth-street, was so far reduced by Bilious Remittent Fever, that little hopes were entertained of his recovery; but in six hours after he commenced the use of our medicine, he grew better, continued to mend, and in a short time was well.

Case 5. Mr. R., Delancey-street, was reduced extremely low of the same fever. The same treatment soon arrested the disease, and restored him to health.

Case 6. Mrs. Low, Suffolk-street, two doors below Stanton-street, was seized with a fever so violent, that she was abandoned by the physicians, who stated that she could not possibly recover. Her pain was violent, skin exceedingly dry, tongue excessively furred, great thirst and great prostration of strength, respiration very laborious, with every dangerous symptoin. In this unfavorable condition we commenced the use of our medicine, which in two hours produced copious perspiration, which with other means, arrested the progress of the fever, and in a few weeks she entirely recovered. The treatment, she states, snatched her from an untimely grave.

Case 7. Mr. D., arrived from the West Indies, was taken with symptoms of the Yellow Fever. The medicine given him produced such a copious perspiration, that in twelve hours the fever was removed.

Case 8. Mr. B., just arrived at Quarantine, from New-Orleans, with symptoms of Yellow Fever. He was attended by a physician, whose treatment proved altogether useless. I then administered medicine which removed large quantities of bilious matter, after which, a copious perspiration was produced, which soon relieved and cured him.

Case 9. Esquire M. had been afflicted for months with Intermittent Fever, attended with cough, which gave an alarming character to the disease. He applied at our Infirmary, and was, in a few weeks, entirely restored to health.

Case 10. Mr. R— , Delancey-street, was attacked with a Bilious Remittent Fever; great prostration of strength; tongue coated; nausea; severe headach; great degree of heat through the whole system; little or no remission of symptoms, together with the ordinary characters of bilious remittent. The treatment pursued soon arrested the fever, and he daily grew better, till his health was completely established. The rapidity with which he amended was spoken of by all his friends.

Case 11. Mr. James Conklin, of this city, was taken with the Intermittent Fever, in Bushwick, Long Island, where it extensively prevailed. The physicians there gave him large quantities of mercury, salts, barks, &c., without effecting a cure: the disease had nearly destroyed his health. Dropsy of the whole system succeeded. In this condition he was placed under our care, and we soon prescribed medicines which brought about a healthy state of the system, and he is now well.

Case. 12. Mr. Brewster, residing at the corner of Moore and Water streets, had become very low, and much reduced by Intermittent Fever. He was at times delirious, and his disease had become so seated, that it was feared he would not survive. In a few weeks our prescriptions cured him.

Case 13. The son of Mr. Burkhill, then residing in Hester-street, was seized with the Remittent Fever; great nausea, pain of the head and other parts, pulse quick, skin dry, delirium and great prostration of strength. A vegetable course of treatment soon restored him to health. His life was once before threatened with bleeding from the nose. In an hour our applications suppressed it.

Case 14. A young man boarding at the house of Mr. Hunt, in Broome-street, was violently seized with Remittent Fever, pain, &c. He was restored to health in a few days.

Another member of the family was violently afflicted with colic, fever, &c. He also was soon cured.

Case 15. We were called to visit a young man residing with Mr. Eustice in Orchard-street, attacked with Bilious Remittent Fever, tongue furred, nausea, headache, great prostration of strength, skin dry, thirst and fever great, &c. Means were taken to restore all the secretions and excretions of the body, which effected a cure in a few days. A number of others were cured in the same house, affected with various diseases, by pursuing a vegetable course of treatment.

Case 16. Mr. Outwater, of New-Jersey, reduced to a low and dangerous state by an attack of Bilious Remittent Fever, which had degenerated into the Typhus; his physicians were administering to him Dover's powder, combined with mercury. Stomach, liver and whole system in a morbid and diseased state, reduced so low, that his recovery was considered doubtful; after the first portion of medicine was given, he grew better, and from that time he recovered rapidly, and in two or three weeks he became well.

Case 17. Mr. Coles Tompkins, was seized with the Bilious Remittent Fever; under the attendance of two or three physicians, he constantly grew worse, in this situation we were called to prescribe, and our treatment soon cured him.

INFLAMMATION OF THE LIVER.

Case 18. Mrs. T. had been long afflicted with Inflammation of the Liver, characterized by pain in the right side and shoulder, secretion of bilious matter, vomiting and purging, great debility, &c. She had been attended for years by a physician, with injury instead of benefit. She applied at our Infirmary, and soon experienced a remission of her symptoms; scarcely a vestige of the disease now remains.

Case 19. Mrs. Passenger, Norfolk-street, had been a long time afflicted with a Chronic Inflammation of the Liver; pain in the side and shoulder, disordered state of the stomach, general debility, &c. She was unable to find relief from physicians, or from any source. After submitting to our treatment for a short time, the symptoms subsided, and, as far as we know, the patient is now well.

Case 20. M. Shade, then residing at 631 Water-street, had been for a long time afflicted with a Chronic Disease of the Liver. Our prescriptions soon cured her. Since that time we have also cured her of Bilious Colic.

PLEURISY.

Case 21. Mr. Moore, Christie-street, a few doors from Broome, was attacked very severely with the Pleurisy. He had been subject to this disease, and his physician had always bled him profusely. This, he found, had injured his constitution, and he now wished to submit to a different course of treatment. He, accordingly, applied at the Infirmary, and was soon cured, without bleeding or mineral medicine. At every previous attack, he had been confined to his bed for three months by excessive depletion; by our treatment he retained his strength, and in a few days was enabled to resume his business.

Case 22. Mrs. N., Orchard-street, was taken so severely with the Pleurisy, that she could scarcely articulate a syllable. She appeared almost in a dying state, and yet, *without bleeding*, in fifteen minutes her pain was mitigated; and in a few days she was well. Had she pursued the ordinary depletive course, in all probability she must have been confined to her room for several months.

Case 23. The daughter of Mr. John Fleming, 397 Bowery, was attacked with Inflammation of the Pleura, great fever, &c. Great pain, and confined to the bed for a great length of time. The usual course was taken to reduce the inflammation, which effected a cure.

Case 24. The wife of Mr. John Fleming, 397 Bowery, was severely attacked with Pleurisy; acute pain in the side, cough, fever, &c. Instead of following the course pursued by ordinary physicians, medicines were given to promote perspiration, fomentations were applied to the side, purgatives were administered which afforded immediate relief, and she was soon cured.

Case 25. Miss Dunlavy, Attorney-street, was so severely attacked with Pleurisy, that it appeared that she could not survive but a short time. The physician who was first called could afford her no relief. Immediate relief was given, and she was soon cured.

INFLAMMATION OF THE BOWELS.

Case 26. Application was made at the Infirmary to see a person very low with the Bilious Colic and Inflammation of the Bowels, who was previously attended by one or more physicians without any effect, as he constantly grew worse. The treatment succeeded in arresting the disease and effected a cure.

Case 27. Another person was attacked with severe Inflammation of the Stomach and Bowels, which reduced him very low, and his case was considered extremely dangerous. The treatment removed the symptoms and effected a cure.

Case 28. Mr. Taber, 158 Stanton-street, was seized violently with Inflammation of the Bowels. His physician bled, blistered, and salivated him; all of which only exasperated the complaint. Nothing passed the bowels for days; constant retching and vomiting, excruciating pain, the bowels finally became enormously swollen; he had been in this condition for about ten days, when his life was almost despaired of. Under these discouraging circumstances we were called to treat him. We gave him such physic as soon produced a free evacuation from the bowels, which lessened the swelling, pain, &c., and arrested the disease. From this time he grew better, and recovered in about a week.

Case 29. This was a case of Enteritis, in its most severe form. The patient was aged three years, and had been generally healthy (except at nine months old it had the small pox). The symptoms were too plainly marked to mistake the disease. The pulse was quick, hard, and resisting, the tongue white, a streak of black down the middle, severe pain in the umbilical region, sickness of the stomach, and vomiting, the bowels costive, great restlessness and tossing of the arms. Two physicians were requested to visit it, and both pronounced the case a hopeless one, yet the reformed treatment proved victorious, and the child was completely cured without the use of the lancet.

INFLAMMATION OF THE LUNGS (*Pneumonia*).

Case 30. Mr. R. had been for a length of time severely afflicted with Inflammation of the Lungs. The pain, cough, and fever were incessant and excessive. Our treatment soon relieved all the symptoms, and he was restored to health, without bleeding even once. When we commenced, the case was considered entirely hopeless.

Case 31. A man in Walker-street, name not recollected, was taken so violently with Inflammation of the Lungs, that there was little or no prospect of his recovery: fever high, cough almost constant, expectoration of purulent matter, with great debility, and every symptom of approaching dissolution. The treatment pursued soon arrested the disease, and he now enjoys good health.

Case 32. A child of Mr. William Marks, printer, of this city, aged about one year, was attacked with Inflammation of the Lungs and Croup so severely, that its life was despaired of. A cure was soon effected.

Case 33. A child of Mr. N. Cort was attacked with an Inflammation of the Lungs so severely that it was given up as incurable. Symptoms, swelling of the throat and neck, great fever, &c. Our medicines soon restored it to health. Also eight or ten other cases of inveterate diseases, all cured by a vegetable mode of treatment.

Case 34. The child of Mr. S. Rust (inventor of patent printing presses), in Eldridge-street, was attacked with Fever and Inflammation of the Lungs so severely that its life was despaired of. This case was likewise cured. Different members of the family were attacked with ten or fifteen other diseases, all of which were cured without mercury or bleeding.

Case 35. A child of Mr. Bloomer, of this city, was so severely afflicted with Inflammation of the Lungs, that little or no hopes were entertained of its recovery. The usual course of treatment restored it to health.

Case 36. This was a child aged eighteen months, exhibiting all the symptoms of Pneumonia, or Inflammation of the Lungs. Respiration was extremely difficult, and an almost incessant cough, mucus

accumulated so rapidly in the trachea, as to greatly endanger the life of the patient; expectoration was suspended, and the patient was thrown into Epileptic fits. The abdomen was much distended and tense; the tonsils were enormously swollen, and great determination of blood to the head. This case was also cured without bleeding.

INFLAMMATION OF THE KIDNEYS.—(*Nephritis.*)

Case 37. Mrs. Matthews, then residing in Nassau-street, below Beekman, was seized so violently with Inflammation of the Kidneys, that she was thrown into spasms, became delirious, &c. Contrary to the expectation of every one, she recovered by our treatment.

Case 38. Mrs. Trembly, then residing in Vandam-street, was seized with the same complaint; and the same treatment produced the same effect.

Case 39. Mrs. Sturges, from Lansinburgh, in this state, came to our Infirmary, with the Chronic Inflammation of the Kidneys. Symptoms—constant pain in the small of the back, which had been for years; urine very turbid, and unequal in quantity, in connexion with rheumatic pains; great debility; indigestion; fever; irritability of the nervous system. She had been treated by Steam Doctors, and physicians of the old school, with little or no benefit. She continued for some months in the city, during which time she daily grew better; and, as far as we know, is now well.

Case 40. Mr. John Fleming, 397 Bowery, was seized with an Inflammation of the Bladder, Kidney, &c. Total suppression of urine, swelling over the region of the abdomen, fever and pain so great that delirium succeeded. His life seemed in imminent danger; his attending physician being unable to afford him any relief. After submitting to our treatment, he was relieved in an hour. He continued to mend until he entirely recovered.

INFLAMMATION OF THE EYES.—(*Ophthalmia.*)

Case 41. Captain Allen, from Rochester, N. Y., was seized with Inflammation of the Eyes, peculiar to that section of the country. He was attended by various physicians, who cupped, bled, blistered, salivated, and nearly starved him to death. Their treatment almost ruined his eyes and constitution. In this situation he came to New-York, and applied at the Eye Infirmary, where he received no encouragement; he then applied at our Institution. He was led here blind, and in a most pitiable and deplorable condition. His eyes appeared like ulcers, which discharged a great quantity of pus or matter. We then commenced our treatment, which removed the inflammation, and excited a healthy action of his eyes and whole system, and, after a few months, he entirely recovered; although his vision will ever remain impaired.

Case 42. Mr. Wright, Forsyth-street, near Delancey, was afflicted with the same disease, and in about the same condition of the case last mentioned. He had been attended for one or two years by various physicians in the country and in this city. He had been blind for about one year. He had likewise been cupped, blistered, salivated, and a seton put in his neck. After being in this state, and given up as incurable, we commenced with him; and, under our treatment, he began rapidly to mend. He can now see, and is able to attend to his business.

Case 43. Mr. West, John-street, opposite the Arcade, was severely afflicted with Opkthalmia, or Inflammation of the Eyes. One or two physicians from the Eye Infirmary cupped, bled, and leeched him, which only aggravated the disease. Our treatment soon removed his symptoms, and cured him.

Case 44. John Morris, in Forsyth-street, a boy aged about ten years, had been afflicted with *Ophthalmia Tarsi*, a disease of the eyelids, for two years. He was unable to find any relief until he applied at our Institution, where he was soon cured.

Case 45. Mrs. R. had become nearly blind from the small-pox. Our applications and treatment cured her in a few weeks. The treatment received by a former physician was of no use.

We have successfully treated hundreds of cases of Inflammation of the eyes, which might be enumerated.

Case 46. Margaret Wade, was seized with a severe pain in the eyes, great swelling and inflammation, after a while she became blind; she then applied to the Eye Infirmary. The attending physician prescribed seven weeks without any good effect; the pain was so great at this time as to cause delirium; she was then placed under our charge; the first application produced relief, and all the symptoms gradually subsided; in ten days her sight was restored, and in two weeks she was enabled to walk the streets, and attended to her usual business.

Case 47. Thomas and Elizabeth Taylor, aged seven and five years, were placed in the New-York Alms House, and were shortly seized with Sore Eyes, so swollen and inflamed, constantly discharging matter, that they became blind, and continued so for two months, suffering with extreme pain; they were obliged to lie on their faces continually, to avoid the light; even in this position, if the windows were opened, it would cause the most excruciating agony. All the treatment of the physicians afforded no relief; so deplorable was their condition, that the superintendant advised the mother to remove them; accordingly they were placed in our Infirmary. Under our treatment the swelling gradually subsided, the discharge soon ceased, and in a short time they could see as well as ever.

QUINSY.

Case 48. A short time since, a child of Mr. —— living at No. 45½ Hester-street, aged about seven years, was violently attacked with *Cynanche Tonsilaris*, or Inflammatory Sore Throat, in which the swelling was so great, as almost entirely to prevent swallowing, and caused great fear of suffocation. The system was also universally affected. A physician belonging to our Infirmary was called, who, without using either the lancet or calomel, or, in fact, any of the long list of poisonous drugs, soon gave relief, and the child was restored to its usual health in three or four days. A few days after, two other of his children were taken in a similar manner: and he, being poor, and thinking himself unable to pay a physician, sent to the Dispensary for advice. A physician from that place was accordingly sent, who, commencing with his calomel, &c., soon prostrated them. The poor children were brought extremely low, but the disease remained unsubdued; however, their good constitutions seemed to resist both the disease and the deadly remedy for the space of four or five weeks, when the youngest one died, and the other one, although in a miserable state, may have recovered.

Case 49. Mr. B., Attorney-street, was attacked so severely with the Quinsy, that he was nearly suffocated. Our treatment soon removed the complaint.

Case 50 Mrs. L., in Orange-street, near Broome, was seized with Inflammation of the throat, which was very severe. In one hour our medicine relieved her, and in a few days she was cured.

Case 51. A lady, name not recollected, in the same neighborhood, was seized with the same complaint; and the same treatment soon cured her.

RHEUMATISM.

Case 52. Mrs. L., Lombardy-street, was taken very ill with Inflammatory Rheumatism, and was scarcely able to move a limb. She had been subject to it, for which she had been previously bled; but our treatment in a short time removed her complaint.

Case 53. One of Mr. Horton's workmen, in Stanton-street, had been for six months afflicted with the Rheumatism, and confined to his bed. A physician had treated him, and bleeding, blistering, and mercury were used without effect. His pains were so excruciating that his cries could be heard a considerable distance. We attended him for about six weeks, at the end of which time he was cured, and again commenced his business.

Case 54. Mr. L., from South-street, was brought to our Infirmary in a carriage, helpless. He took our medicines a few weeks, and was entirely restored to health.

Case 55. Mr. Ely, from New-Haven, Conn., was brought to this city in a helpless state, from Inflammatory Rheumatism; great swelling of the joints, excessive pain, &c. The physicians who attended him were unable to render him any benefit. After submitting to our treatment for a few weeks, he was enabled to return to his business, and was restored to health.

Case 56. Mr. Caleb Fordham, Madison-street, was confined to his bed for several months with Inflammatory Rheumatism, attended with great pain and inflammation of the joints, which prevented him almost from moving the limb. The treatment gradually eradicated the disease from the system, and he now walks and attends to his ordinary business.

Numerous cases might be mentioned, where persons have been cured of this disease by our treatment, when the ordinary method was useless or injurious.

DYSPEPSIA AND LIVER COMPLAINT.

Case 57. Mr. De Forest had been seven years afflicted with Dyspepsia, or Liver Complaint. He was unable to perform any manual labour, and had despaired of ever being restored to health. He tried various physicians in the city and country without receiving any benefit. He submitted to a course of our medicine, which soon produced the most signal good effects, and after some time effected a cure.

Case 58. Mrs. P., Attorney-street, was so far reduced with Dyspepsia, that she had but little flesh remaining, and could scarcely take any food. Her health and spirits were gone, and no prospect remained of ever enjoying them again. After taking our medicine a few weeks, her appetite was restored, she recovered her flesh, and now enjoys good health.

Case 59. Mr. Welsh, of Kingston, N. Y., had been for a long time afflicted with the Liver Complaint, or Dyspepsia. He had been confined to his house and bed for a length of time, and his case seemed hopeless, his physicians not being able to relieve or cure him. By the use of our remedies he entirely recovered, and now enjoys excellent health.

Case 60. Mrs. L., Elm-street, near Spring, had been afflicted with Dyspepsia for some time. She could get no relief until she applied at the Infirmary, and was soon cured.

Case 61. Mr. Conklin Davis, of Brookhaven, Long Island, was afflicted with the Dyspepsia, for a number of years. Stomach and liver diseased; great debility; food not digested. The whole system became much impaired, and continually getting worse. He could find no relief from physicians, or any other source, until he applied at our Infirmary. The remedies removed the complaint, after some length of time. I have since seen the person, who states that he enjoys tolerable health.

Case 62. Mr. T. Atwater, of Williamsburg, Long Island, was afflicted with Indigestion for a great length of time; pain and swelling of the stomach, particularly after eating; general debility, &c., disordered state of the bowels. Soon after he applied for relief, he grew better; and in a short time, the symptoms subsided.

Case 63. The daughter of Mrs. Burkhill, then residing in Park Place, became so low and emaciated with Dyspepsia, that her recovery seemed doubtful. Our usual course of treatment gave immediate relief. Her mother now states that she is indebted for her life to our medicines. The ordinary means were used.

Case 64. Mrs. Neal, 132 Stanton-street, was taken with a severe Palpitation of the Heart, which proved very painful and obstinate, the stomach was very much disordered; great emaciation, fever, debility, &c. Two physicians pronounced her case hopeless. Our treatment cured her of this complaint.

A score of similar cases might here be mentioned.

INCIPIENT APOPLEXY.

Case 65. Mr. M., corner of Prince and Green, was seized with all the symptoms of Apoplexy in its first stages. The treatment we adopted restored him to health, and he has remained free of the complaint ever since.

Case 66. Mr. L. applied at the Infirmary with the same symptoms; the same treatment effected a cure.

Case 67. Mr Paul, aged about 70, residing in Forsyth-street, had been subject to attacks of Apoplexy for considerable time; they increased upon him, until he was seized with one so severely that the immediate extinction of life was threatened. The physician who was called to him proposed bleeding. We did not bleed him, but used means to equalize the circulation, which gave immediate relief. His senses returned and strength, he gradually grew better, until he recovered, and has remained so for a great length of time. I have this day seen him, and he is as well as ever. Had the usual depletive course been followed, he would in all human probability have been now in his grave.

Case 68. Mr. Campbell, 24 Stone-street, was taken suddenly with a Determination of Blood to the Head, senses gone, coldness of the extremities, &c. We used warm and stimulating applications, which recalled the blood to the surface of the body; these means afforded relief, and soon effected a cure. He has been well for several years, whereas, under the treatment of his former physician, he had a frequent return of the complaint, and was often bled for it.

DYSENTERY.

Case 69. A young lady, name not taken down, residing in Eldridge-street, near Broome, was seized with the Dysentery, with the most violent symptoms; pain very great. The medicine given by her physicians, Dr. V. Z. and Dr. D., only injured her. We were called upon, and commenced our treatment; in one hour the pain subsided, and in a few weeks she was enabled to return to her home in the country.

Case 70. Mr. L. now residing in Elm street, above Broome, was reduced nearly to a skeleton by the Chronic Dysentery. Our treatment soon restored him to perfect health.

Case 71. The wife of Mr. Higgins, in Division-street, had been afflicted for a long time with the same disease. She had been attended a long time by a physician without any benefit. She was so far reduced, that she began to despair of ever getting better. In this situation we found her, when called to administer relief; and, as in other cases, she was soon restored to health.

Case 72. Mr. S——, of this city, had been labouring under the Chronic Dysentery, for more than a year. His bowels were constantly in a morbid or unhealthy state. The remedies prescribed for him effected a cure.

Case 73. The child of Mrs. Holmes, 42 Forsyth-street, was taken so severe that its life was despaired of. The worst and most unfavourable and the last stage of dysentery. Two physicians attended her, under whose treatment she grew worse. In this condition, in the advanced stage of the disease, we were called, and our medicine almost immediately arrested the disease and cured her. One of the attending physicians witnessed the effect of our medicine, and expressed his admiration of it.

Case 74. This was a female, aged nine years, labouring under acute Dysentery, in its most aggravated form. The patient had been confined between three and four days, and, consequently, was very much exhausted. Prompt and energetic treatment restored her to health in a few days.

CHOLERA MORBUS.

Case 75. The daughter of Mr. Robinson was taken with the Cholera Morbus. A physician was sent for, but could administer no relief. We were called to visit her when she was nearly dead. Her eyes were sunken; she was senseless, and constant vomiting and purging. An energetic course of treatment was immediately adopted, which in a few hours changed the character of the complaint, and effected a cure.

Case 76. Mrs. Johnson, Christie, near Delancey-street, was attacked so severely with the Cholera Morbus, that she was thrown into spasms. The prescriptions of her physician only aggravated her disease. When we were called to her, she appeared nearly gone. The medicine which we gave her afforded immediate relief, and in a short time she recovered. She states, that she could not have survived but a short time without the relief afforded her.

Case 77. Mrs. P., residing in Chesnut-street, between Madison and Oak, was seized so violently with the Cholera Morbus, that her cries could be heard over the house. The second dose of medicine removed the pain; the next day she was nearly well.

SUMMER COMPLAINT (*Diarrhœa*).

Case 78. The child of Mrs. Johnson, the lady mentioned above, was so far reduced with the Summer Complaint, that he was given up by two or three physicians. His flesh was nearly consumed; he was exceedingly bloated, with every symptom of the consumption. When requested to attend the child, we at first declined, considering it beyond the reach of medicine; but, supposing we might, at least, afford some relief, we commenced, and the child gradually grew better, and finally became entirely well.

Case 79. A child in Governeur-street, near Cherry, from Long Island, had become very much reduced by the Diarrhœa, or Summer Complaint. All means employed had been unavailing. They then applied at the Infirmary, and the child was soon cured.

Case 80. Miss Steward, of Greenwich village, had been afflicted with the Diarrhœa and Dysentery for more than a year. During part of this time, she had been attended by physicians, who tried various experiments, but could not cure her. She had become very much emaciated, strength and appetite gone, attended with dropsy, fever, &c. It was in this condition we first saw her, and commenced the use of our medicine; and after a few months, she was restored to health.

Case 81. The child of Mrs. Trembly was severely afflicted with the Summer Complaint, or Diarrhœa and was given up as incurable. Our usual course of treatment removed the disease, and the child now enjoys good health.

Case 82. The patient was a married lady, about thirty-six years of age; she had been confined about two weeks, and was so much reduced, as not to be able to sit up in bed. The fourth day after she commenced taking medicine, she was able to leave her bed without assistance, and in one week more was perfectly cured.

BILIOUS COLIC.

Case 83. A young man in Christie-street was so violently seized with the Bilious Colic, that he became delirious, and was thrown into spasms. A physician had bled and blistered him, to no purpose. We were called to visit him, and administered medicine, which afforded almost immediate relief. As hopeless as this case was considered by all who saw him, he survived.

Case 84. One of the workmen of Mr. Bundy, in Division street, head of Market, was taken so severely with the Painter's Colic, that he became senseless, and was conveyed to his boarding-house in a carriage. It was supposed, by all who saw him, that he was in a dying state. We commenced the most active treatment, which was kept up for several hours, until signs of life returned. Notwithstanding the hopeless condition in which we found this man, the means made use of restored him to health.

Case 85. Another of the above-named workmen was taken with the same complaint; great constipation of the bowels, severe pain, vomiting, &c. The usual treatment soon cured him.

Case 86. Mr. B., in Elizabeth-street, was seized violently with the Bilious Colic. When we were called to attend him, we found him in the greatest agony; his pain was so great, that he was occasionally insane Our prescriptions cured him in a few days.

Case 87. Mr. Hadley, 104 Allen-street, was so suddenly and powerfully seized with Bilious Colic, that his life seemed in imminent danger. Our medicines afforded immediate relief, and in a few days he was well.

SCROFULA, OR KING'S EVIL.

To the Editor of the New-York Enquirer.

Case 88. As you are always disposed to make known every thing calculated to benefit society, I have concluded to send you a brief statement of a cure recently performed on myself.

On the 2d of September, 1827, I was attacked with a severe pain and swelling on the side of my head and neck. It increased until suppuration took place, and was attended with the most excruciating torture. I was examined and attended by a number of physicians, in all not less than seven; among whom was Dr. Mott. I was bled, cupped, and salivated, likewise lanced fourteen times, and had several hundred poultices applied. Under this treatment, I was constantly becoming more and more re-

duced, and my complaint growing worse every day. The opening or cavity of the disease extended from the crown of the head down to the temple, and from thence back of the ear down to the windpipe. So reduced had I become, that I was unable to take food for several days together. My throat and neck were exceedingly swollen. One of the physicians who was subsequently called, laid aside the poultices, kept the part wet with rum, and gave me in a short time a pound of salts, and introduced a ligature from one opening of the abscess to the other. Under this treatment, I was rapidly declining. My head became immovable, my appetite was gone, and very little prospect entertained of my recovery. At this critical period, I was advised by a friend to apply to an Institution recently established at No. 95 Eldridge street, called the United States Infirmary, where I was informed that a successful course of practice was pursued, and the remedies chiefly derived from the productions of our own country. I therefore sent for the superintendent, who came to visit me, and pronounced my disease the scrofula, or king's evil, and commenced altogether a different course of treatment, under which I began rapidly to improve. The pain soon subsided, the ulcers assumed a healthy appearance, my general health gradually recovered, and in less than two months a perfect cure was effected. Since I have been cured, I have done the duty of a fireman, and been completely drenched with water, without the least injury or return of my former symptoms. From the evidence I have of the practice and principles of this Institution, I entertain the most favourable opinion of its merits, and I believe it to be the best of the kind in this country. Founded as it is upon the botanical system, the remedial course pursued must, in my humble opinion, be far more congenial to our inhabitants than that usually adopted by physicians and surgeons of the present day. Mercury, the lancet, and the knife, are now chiefly relied on for the removal of most diseases incident to the human body. Every candid and discerning mind will at once admit that the most dangerous consequences have often resulted from the above course, and a substitute for such practice must constitute a glorious era in the annals of medical science. It is high time that the eyes of the public should be awakened, and a more careful examination made into the medical productions of our own climate. Yours, respectfully, JOHN J. MURDOCK.

Case 89. The child of Mr. Barnes, Pearl street, was afflicted for a length of time with the King's Evil, or Scrofula, and had been attended by several physicians, without any benefit. After a few months, we effected a cure, and the child has remained well ever since.

Case 90. The child of Mrs. R., residence not known, was afflicted with a Scrofulous Swelling under the chin, which was cured in about two months after we commenced.

Case 91. The child of Mr Reed, East Broadway, below Clinton, was attacked with an enormous Scrofulous Swelling under the chin. It was exceedingly swollen, and very hard. One physician who attended, being unable to afford relief, abandoned the child. We were called to prescribe for the child, soon cured it, and it has remained well for several years, having seen the child a few days since.

Case 92. The daughter of Mr. Richard Hunt, now Mrs. Underhill, was afflicted with the Scrofula for a number of years. She had applied to a number of physicians, without receiving any benefit. We were called to the case, treated it, and effected a perfect cure.

Case 93. The daughter of Mr. J. W. Robinson was taken with a Scrofulous Swelling in the glands of the neck. Our treatment cured her, and she has been well for two years.

Case 94. Mr.———, the foreman of Mr. St. John, merchant tailor, Greenwich-street, was for a long time afflicted with the King's Evil, or Scrofula. He had employed two physicians for a length of time, without receiving any benefit. Our usual course of treatment restored him to perfect health.

Case 95. The child of Mr. William P. Morris, formerly auctioneer, was afflicted with several large Scrofulous Tumours in the neck. Our treatment and prescriptions cured him. It has remained well ever since.

Case 96. The child of Mr. A. T. Morris, then residing in Church-street, below Canal, was afflicted with a Scrofulous Ulcer in the neck, which we also cured after a few months.

Case 97. Mr. R., a cartman, applied at our Infirmary; was afflicted with an enormous Swelling or Tumour upon the neck and jaw, which it seemed impossible ever to remove. In the course of some time, however, we succeeded in curing it.

Case 98. George, a coloured man, from Trenton, was attacked with an enormous swelling or Tumour on his neck, as large as a child's head. Four physicians were called, who pronounced it incurable. After poulticing, it suppurated, and discharged through fifteen different openings. After persevering for a length of time, this disease was also perfectly cured. .

Case 99. Joseph Denton, then residing in the city of New-York, now in Brookhaven, Long Island, was attacked with a Scrofulous Tumour upon the neck. It increased, and finally suppurated, leaving an obstinate Scrofulous ulcer. He could find no relief till he submitted to our treatment; when the tumour began to subside, the discharge to lessen and become healthy; and the ulcer healed in about three months from the commencement. He has been well for a number of years.

Case 100. The child of Mr. W. Morris, then auctioneer, in this city, had the Scrofula for a length of time. The neck was inflamed; great heat, pain, and finally ulceration took place. The treatment pursued at our Infirmary effected a radical cure.

ST. VITUS' DANCE (*Chorea Sancti Viti.*)

Case 101. About six months ago, a woman applied at our Infirmary, with a remarkable case of St. Vitus' Dance. Her limbs were thrown in various directions, having no control over them; loss of appetite, debility, and excessive pain attending it. She consulted five physicians, who were unable to tell what the complaint was, much less to cure it. The treatment which we pursued had a salutary effect; and after a short period, restored her to perfect health.

Case 102. About this time, George, a boy about fifteen years old, came to the Infirmary, afflicted with the same disease; his left leg and arm he was unable to control. They were kept in constant motion. The same treatment which was pursued for the woman above mentioned, cured this lad.

ASTHMA.

Case 103. We were sent for to see a young woman in Allen-street, two doors from the church, who was said to be dying with the Asthma. When we arrived, we found her almost gone, being nearly suffocated. Two physicians had prescribed tartar emetic, &c., without any effect. We administered a decoction of lobelia, which relieved her in fifteen or twenty minutes, and she soon recovered.

Case 104. Mr. Walden was severely attacked with the Asthma. The medicines given soon afforded relief.

CROUP.

Case 105. A child in Elizabeth-street, above Grand, was thought to be dying of the Croup. We administered medicines, which afforded immediate relief, and soon effected a cure.

Case 106. A child of Mrs. Welsh, in Norfolk-street, was suddenly attacked with the Croup. When we were called upon, the child's life was despaired of; but by prompt treatment it was immediately relieved, and soon restored to perfect health.

Case 107. The child of Mrs. N., Mulberry-street, near Houston, was seized so suddenly with the Croup, that his life was despaired of. Our prescriptions soon relieved it, and eventually cured it.

Case 108. The child of Mrs. Griffith, in Essex-street, was in the last stage of Croup. The physicians who attended him, pronounced him to be incurable and dying. They frequently called in and asked if he was not yet dead. At this time we were called to see him, and although the case seemed entirely hopeless, the child being nearly gone, from the accumulation of mucus in the bronchial vessels and lungs, a few drops of medicine was administered, which caused him to raise the mucus, and relieved the oppression, from which moment he gradually grew better, until he recovered.

DROPSY.

Case 109. Mr. B., near the Battery, had been afflicted with Dropsy in the Chest of many years. He could find none that understood his complaint, or could cure it. He applied at our Infirmary, received our prescriptions, and entirely recovered his health.

Case 110. Mrs. Caswell had been confined to her bed for several months, with an enormous dropsical swelling of the abdomen. She was reduced so low by the disease, that her life was despaired of. Under our treatment she grew better, until she finally recovered.

Case 111. Mrs. R., Rivington-street, had been afflicted for several months with Dropsy in the Chest, which confined her to her bed. Our treatment restored her to health.

Case 112. Mr. L., had a Dropsy of the Chest for a length of time; he could find no relief. Our medicine cured him in a few weeks.

Case 113. Mrs. Cook, then residing in Essex-street, was taken with the Inflammatory Rheumatism. Her physicians bled, blistered and salivated her, until her constitution was almost ruined. She then applied at our Infirmary, when she exhibited the following symptoms: extreme debility, which confined her to her bed; cough, which appeared to be seated on her lungs; Dropsy in the Chest; loss of appetite; wasting of the system, &c. It was thought by her friends that she could not survive but a short time. The treatment pursued effected a change in her system, removed the symptoms, and, as far as we know, she is now enjoying good health.

Case 114. Mr. James Conklin, was taken with a Dropsy of the whole system: his face became very much bloated, and abdomen enormously swelled, so much so that his clothes could not be buttoned. He was unable to perform any manual labour, and his system was fast sinking, attended also with a troublesome cough. This was brought on by the use of mercury, for the fever and ague, &c. So obstinate was the disease that it was feared he never would recover. After attending, however, to our prescriptions, the water in enormous quantities was discharged, the swelling of the body subsided; and in a few weeks not a vestige of the disease remained. He has been perfectly well for a length of time.

Case 115. Mrs. Washburn, residing then in First-street, was seized with pain at the lower portion of the breast bone: difficulty of breathing; fulness and tightness of the chest; diminution of urine; which was very high coloured, and all other symptoms of Dropsy in the Chest. It afflicted her so much, that, for a portion of the time, she was confined to her bed. The medicines which we prescribed, in a few weeks effected a perfect cure.

Case 116. Mrs. Kimball, of this city, was afflicted with a Dropsy of the Chest. Our prescriptions cured her in a short time. We also cured her of another inveterate disease.

Case 117. Mr. Richardson, grocer, then residing in Eldridge-street, was afflicted with a Dropsy in the Chest, pain, fulness, and stricture of the chest, shortness of breath, diminution of urine, &c. The medicines prescribed for him effected a cure.

Case 118. A child of Mrs. ——, No. 170 Rivington-street, between four and five years old, was attacked with Dropsy in the Head. Symptoms, fever, restlessness, nausea and vomiting, bowels relaxed, stools of a dark colour, and very offensive, pulse quick, pupil of the eye very much dilated, intolerance of light, tongue furred, appetite impaired, skin dry, pain in the head, and extremely hot; she would throw her head back and shriek or cry out without any perceptible cause, lethargy, &c. She had been ill, and rapidly growing worse, for about four days, when I was called. She was, when I first saw her, in almost a hopeless condition, so bad indeed that her life was despaired of, and her mother and friends imagined her dying; but the following treatment cured her, and she is, to the best of my knowledge, now perfectly well. I commenced with purgatives; the neutralizing physic to regulate the bowels, afterwards the bilious physic, cooling washes to the head, put the feet in warm ley water, and bathed the surface, gave the sudorific tincture, but it did not agree with her, I then gave, to keep up a gentle diaphoresis, the amaranthus. This treatment was repeated for about five or six days, when I gave the digitalis and spearmint, and finished with restorative cordial, which performed a perfect cure.

FLUOR ALBUS.

Case 119. Mrs. C., Stanton-street, had been afflicted with the Fluor Albus, periodically, for six years; had tried various physicians, without any benefit. One of the physicians of our Infirmary cured this woman in a few weeks: she now enjoys good health.

Case 120. Mrs. T., of Rivington street, had been afflicted with Menorrhagia, or profuse flow of the catemenia, for a number of months, and had tried various prescriptions, without material benefit. She was attended by a physician from our Infirmary, and in six weeks she was so far recovered as to be able to attend to her work.

Case 121. Mrs. L., of Elizabeth-street, had been afflicted and confined to her bed for many years with (Menorrhagia) copious discharges of blood, excessive debility, emaciation, &c. She could find no relief from ordinary treatment. Our treatment arrested the disease, and she is now perfectly well.

Case 122. Mrs. Miller, Laurens-street, had been a long time afflicted with Fluor Albus, general debility, &c. She was unable to find relief from any of the prescriptions of her physicians. In the course of a few weeks, by adhering to our prescriptions, she was enabled to resume her ordinary business.

COUGHS—CONSUMPTION.

Case 123. Mrs. Fry, Eldridge-street, was afflicted with a Cough so severe, that doubts were entertained of her recovery. Our treatment restored her to health.

Case 124. Mr. W. Letson introduced a man to us from South America, apparently near his end from Consumption; hectic fever, incessant Cough, copious expectoration of matter continually wasting away of the whole body. From the symptoms it appeared that he could not survive a few months. We commenced our treatment with great reluctance, but, contrary to the expectation of every one, the medicine arrested the disease and restored him to health.

Case 125. Mrs. Montrose, from Peekskill, N. Y. had been afflicted with Cough for a long time. Her physicians pronounced her disease the Consumption, and said she could not survive but a few months. She applied at our laboratory, and in a few months she was cured.

Case 126. Mrs. Miller Norfolk street near Delancey, had been ailing with a Cough for some time, and was evidently in a decline. Her flesh was fast wasting away, countenance pale, night sweats and hectic fever. She was scarcely able to walk across the room. Our treatment and powerful pills performed a perfect cure, and she now enjoys remarkably good health.

Case 127. Mr Jennings, from Hartford, Conn., was afflicted with Cough, spitting of blood and all the symptoms of Consumption. He could find no relief until he applied at our laboratory, and soon after was enabled by the treatment he received to return to his business.

Case 128. Captain L., from Sag Harbour, L. I., had an affection of the Lungs for some years, spitting of blood, great weakness, &c. Since using our medicine the symptoms have subsided, and he now enjoys tolerably good health.

Case 129. Mrs. L. was so severely afflicted with a Cough, that no hopes were entertained of her recovery. Our treatment entirely cured her.

Case 130. Mrs. Milner, aged about thirty years, residing in Suffolk street, was taken with a severe cold, which lasted for six or nine months. After the inflammation subsided, suppuration followed. She expectorated, or raised large quantities of thick matter or pus, which continued during the time of the complaint; more or less pain in the chest; night sweats. Continued to waste away, until most of her flesh was gone; countenance pale; cough excessive, great debility, and every symptom of approaching dissolution.

Soon after she commenced taking our medicines, a mitigation of all the symptoms followed, and in the course of three or four months, she was perfectly well and has remained so ever since. We have named the disease the Consumption. Some may prefer to give it another name, but names being arbitrary, will not alter the complexion of the disease.

Case 131. Mrs. Griffin a relative of the lady above mentioned was afflicted in a similar manner, though the symptoms were not so violent. Cough, wasting of the system, hectic fever, expectoration of matter, great debility. A similar course of treatment restored her to health in two or three months.

Case 132. Mr. Hoyt, of Danbury, Connecticut, was reduced exceedingly low with a cough, flesh and strength wasted away, fever, great quantities of matter daily expectorated, and so severe and was the disease, that he was pronounced by all who knew him as a dead man. None of the physicians to whom he applied could afford him any relief. Under these circumstances he applied to us. The medicines which we gave him, he states, soon produced a crisis in the disorder. When we last saw him he was nearly well.

Case 133. Mr. William Cook of this city, was attacked with inflammation of the Lungs, which continued for a length of time, and then suppuration took place. He raised large quantities of pus or matter, but less than half a pint each day; pain in the breast, night sweats, continual wasting of the whole body, excessive debility, and almost confirmed Consumption. Every symptom of confirmed Phthisis or Consumption. The remedies proved successful.

Case 134. Mrs. Wicks, of this city, was attacked with an inflammation of the Pleura and Lungs, which continued for about a year; fever during most of the time, constant pain in the chest, cough, during most of the night, expectoration of large quantities of purulent matter; part of the time she was confined to her bed. She was cured.

Case 135. Mrs. Provost, 11 Clinton-street, was seized with Pneumonia, or Inflammation of the Lungs, which lasted for several months, and terminated in suppuration. It was attended with a very deep-seated cough, with a copious discharge of matter, hectic fever, night sweats, great emaciation, with all the symptoms of Consumption. The course pursued at our Infirmary cured the disease. A number of others in the same family were cured without much trouble.

Case 136. I was requested by Mr. Lane to visit one of his children, aged sixteen months. He informed me that it had been unwell for nearly three months, during which time Dr. —— had constantly attended it, without affording any relief. He said he was fully convinced that the child had the Consumption, that medicine would be of no benefit to it, and that, in calling me, he was actuated more by a sense of duty, than a hope of saving the life of his child.

From what I could learn, from the present symptoms, and a history of the case, the child was evidently labouring under a severe attack of marasmus or infantile fever, and that much depended upon proper treatment. Digestion appeared perfectly at a stand; the food passed off without undergoing any change, but what would naturally result from its exposure to heat and moisture. The stools altogether void of their natural smell and appearance, the appetite entirely gone. Emaciation had gone on so rapidly that there was not sufficient strength left for the child to turn itself on her lap, the cheeks had fallen in, the eyes were glassy, and sunk in their sockets, the skin was remarkably pale, except when reddened by the flush of hectic fever.

Under these discouraging symptoms, I deemed it an almost hopeless case, but feeling anxious to test the efficacy of the Reformed Practice, I commenced a course of treatment, and in four weeks it produced an astonishing change in the patient. His flesh became clear and natural, the cheeks were more full and less pale, the appetite was improved, and in fact every bad symptom was subdued. Three months from the time I commenced treating it, I found the child in the enjoyment of better health than it had ever before experienced.

Case 137. Mr. Cline, residing in Catharine-street, had for a long time been afflicted with a deep-seated Cough, pronounced Consumption, had been attended by two physicians, and abandoned the case as incurable; the treatment pursued competely restored his health.

Case 138. Mrs. Hozier, of Williamsburgh, L. I., had been a long time afflicted with fever, cough, debility, hectic fever, and night sweats, and considered incurable by her attending physicians who pronounced her disease the Consumption. She had been bled, cupped and taken mercury without any beneficial effect. After changing the treatment, and prescribing vegetable agents, she began to improve; and at the present time she is free of all the former symptoms, and has resumed her usual business.

Treatment. The treatment in one particular differed from that laid down under the Head of Pulmo-

nary Consumption. 1st. The pulmonary balsam was given. 2d. Tincture of foxglove to lessen arterial excitement. 3d. Elixir of vitriol to aid in checking night sweats. 4th. A syrup made of liverwort, and the rock polypod, and given alternately with the other. 5th. A pill was given, composed of the yellow Pine turpentine, as it exudes from the tree, containing about three grains each. 6th. For drink, equal parts of milk, warm from the cow, and hot water drank freely.

SYPHILIS, &c.

Case 139. Mrs. Bloomfield, then residing in Robinson-street, was afflicted with a Syphilitic disease for years; had large ulcers in the mouth and cheeks. She applied to a Dr. L., who professed to be a cancer doctor. He applied a plaster, said to be composed of arsenic, which produced the most exquisite pain, and separated several pieces of the bones, but only aggravated the disease. Our treatment soon healed up the ulcers, and she has remained well for three years.

Case 140. A person from Long Island had the same complaint for many years. A large hole was eaten through the roof of the mouth. Our treatment cured it in a few months.

Case 141. A young man, name not taken, had his whole system contaminated with the Syphilitic poison; from the hip to the knee he was covered with ulcers. Our treatment soon arrested the progress of the disease, and in six months healed up every ulcer; and he now enjoys good health. The scars cover a considerable portion of his body.

Case 142. C., a young man, was brought from the country, a cripple, and nearly ruined by the same disease. Part of his body was nearly a mass of corruption, and his physicians had pronounced him incurable. After using our medicine a while, he was enabled to walk, his ulcers healed up, and he has now returned home well.

Case 143. A lawyer of this city had been for years afflicted with the same disease; had applied to various physicians in vain. After using our medicine for a few months, he regained his health.

Case 144. A Mr. Summers was nearly gone with the same disease; had been under the treatment of Drs. C. and W., for a length of time; but was constantly growing worse. In six weeks after we commenced with him, he was enabled to return to his business, cured.

Case 145. William Graham, Forsyth-street, applied at our Infirmary, affected with the Venereal Disease, of seven years' standing. The symptoms were general emaciation and debility; part of the time hectic fever. The disease had contaminated the whole system, and had nearly ruined the constitution. Ulcers of a very virulent and irritable character existed in various parts of the body; copious discharges of fetid matter, and all the ordinary symptoms of the worst species of *Lues Venerea*. He had applied to numerous physicians without benefit. Most of the medicine he received from all was mercury in some form or another, which caused the Mercurial Rheumatism. The treatment pursued under the head of Venereal Disease, after some length of time, effected a cure.

Case 146. A woman, aged about thirty years, applied for assistance, at our Infirmary, with the whole fluids completely contaminated with the Venereal poison. One or more openings had been made through the skull, by the effect of the complaint. The lower jaw-bone was carious from one angle to the other. Numerous sinuses or openings to the bone existed. It had been of many years' standing, and could not be cured by the various medicines which she had used. Medicines were given internally to eradicate the taint of the system, and such applied externally, as separated the diseased bone, which, together with a little manual effort, after a period of about six months, removed the whole maxillary, or jaw bone. Osseous matter had previously been deposited about the alveolar processes, by which the teeth were still retained. It began rapidly to heal, and when we last saw her, it was nearly closed up; and, as far as we know, she is now well. The jaw-bone, after extraction, appeared very much diseased, but still retained considerable firmness and strength.

Case 147. Mrs. Smith, Rivington-street, had been afflicted for two or three years with an ulcer in the throat, which a number of physicians were unable to cure. Our prescription effected a cure.

Case 148. Levi M'Alister, then residing at 132 Elizabeth-street, had been labouring under the Lues Venerea, for eighteen months. Most extensive and formidable ulcers covered a portion of the body, from which issued great quantities of matter, so offensive that it was extremely unpleasant to dress them. During the continuance of the disease, he was unable to attend his business. He had been attended by three physicians without deriving any benefit. He was in the New-York Hospital for eighteen months, but the surgeons were unable to cure him. When he was nearly ruined by the disease, we began to prescribe for him. In a few days he was better, and in a few months he was cured.

ULCERS.

Case 149. Mr. Cox, near New-Brunswick, was run over by a wagon; had his leg so injured that a Dr. T. decided that he could never recover until a portion of the bone was removed. He was unable to walk for a length of time, and was extremely reduced. After submitting to our treatment for a few months he was cured.

From the Evening Journal.

Case 150. *Messrs. Editors*—I feel it my duty to make known to you, what I deem to be one of the most remarkable cures performed either in Europe or America. In 1825, I was injured in one of my legs with an anchor. I was attended by a physician of this city for eight months without any benefit. I then went to England, and was there attended by a surgeon, without receiving any benefit. From thence I went to Ireland, and there was treated by several physicians with no better effect. From thence I returned to America, and placed myself under the care of a physician, who, in consultation with another, pronounced my leg incurable, and decided that it must be amputated.

At this time, the leg, from the knee downward to the ankle, was in a complete state of ulceration, with callous and swelling, which confined me one year and a half to the house; and so low was I reduced, that it was expected I never should recover. In this deplorable condition, almost in despair, I was recommended to apply to an Institution in Eldridge-street, called the United States Infirmary, when one of the physicians came to see me, and commenced altogether a different course of treatment, under which I soon began to grow better. The ulcers assumed a healthy appearance, my health improved, and I can now use my leg and attend to my business as well as ever.

The whole *thirty-eight ulcers*, which rendered my leg almost a mass of corruption, are perfectly healed. In justice to the physician of this Institution, Dr. Beach, as well as the good of the public, I deem it my duty to make this remarkable and unprecedented cure as extensively known as possible.

RICHARD B. MILLWOOD.

Case 151. Mr. ———, an Italian singer in the Park Theatre, had been reduced very low by an Ulcer upon the shoulder and throat, attended with cough, emaciation, &c. He had applied to Dr. S.——, and others of this city, but could get no relief. In about two months we succeeded in effecting a perfect cure.

Case 152. A son of Mrs. Fraser, Batavia-street, a few doors from Roosevelt-street, had an ulcer upon the leg of long standing; tried various means without any benefit. His physicians, we believe, decided that it must be amputated. We attended him for a period, and effected a cure.

Case 153. Mr. Van Name, from Staten Island, had been afflicted many years with Ulcers upon his leg from the knee to the ankle. The bone was extensively diseased: he had applied to four or five physicians; among the number was Dr. Mott. He was told that it must be amputated. He applied at our Infirmary, and submitted to our treatment. Our applications removed the Inflammation, and so much loosened the diseased bones, that a considerable portion of them were extracted. He now walks as well as ever, and, as far as we know, the ulcers have healed.

Case 154. Mrs. Smith, 261 Rivington-street, had an ulcer in the throat of seven months' standing; had applied to twelve physicians in vain; was given up as incurable. Our prescriptions effected a perfect cure.

Case 155. A little girl, corner of Anthony and Elm streets, was attacked with Inflammation and Ulcer upon the ankle. One of the Professors of the old medical school in this city ordered it to be amputated immediately. A few simple dressings cured it.

Case 156. Mr. Cameyer, morocco dresser, Ferry-street, was injured above the knee by a nail. The Inflammation and pain were very great; the swelling of the whole leg rendered it three times as large as the other, and threatened soon to put an end to his life. Under the treatment of Dr. B——, who applied blisters, he rapidly grew worse. After being called to him, we commenced with the most prompt and energetic treatment; the pain, inflammation, swelling, &c., subsided, and he finally recovered.

Case 157. The daughter of Mr. Joseph Smith, Peck-slip, a few doors from Pearl-street, had an Inflammation and Ulcer on one of her legs, which rendered her a cripple, and unable to walk for months and years. She had tried various physicians to no purpose; among the number were Drs. Mott and Stevens. She was also taken to the celebrated Dr. Sweet, of R. I., but none could benefit her. She was placed under our hands, and her disease soon began to grow better. Her ulcers are now healed, her crutches are thrown aside, and she walks even without limping. It had been decided that her leg must be amputated.

Case 158. The daughter of Mr. Ross, Dominick-street, was attacked with Inflammation and Ulcers on the knee and leg, the whole of which was a mass of corruption. The joints of the knee were displaced, and the fingers could be introduced under the sinews. She had been attended by the late Dr. Wright, Post and others, without any benefit. Although this case was so hopeless, we succeeded in effecting a cure.

Case 159. Mrs. B., Spring-street, had her thigh fractured, but her physician, not knowing how to treat it, suffered the bones to remain separated for two or three inches. Great pain and swelling were the consequence, which confined her to her bed for several months. We were enabled to reduce the swelling and inflammation; and, after a period, she was able to walk, and is now well.

Case 160. John Gamble, a boy aged about twelve years, then residing in Spruce-street, was run over by an engine, which exceedingly bruised and injured his leg. Under the treatment of the physician who attended him, he was constantly growing worse. His leg was exceedingly inflamed and swollen, and very much lacerated. Our applications soon separated large portions of dead or mortified flesh, when the wounds healed, and he recovered.

WOUNDS AND CONTUSIONS.

Case 161. Mr. Hosier, Fifth-street, near Lewis, received a Wound upon the hand, by an instrument of several tons weight, which crushed the fingers, hand, &c. He was advised to have it amputated immediately; but our treatment healed the wound, and he has now the use of his hand; no part lost except the thumb. The physician who had previously advised that the hand must be cut off, expressed his astonishment at the cure.

Case 162. The foreman of Mr. Nicholls, Mulberry-street, near Houston, received the weight of a large stone upon his hand, which crushed it, and broke several of the fingers: at first sight it seemed almost impossible to cure it without amputation, but by reducing the inflammation, separating the dead flesh, and keeping the fractured bones in contact, the hand was cured, and he has now the use of it as well as ever.

Case 163. Mr. John Newcomb, 343 Third-street, fell from a scaffold in a ship yard, fractured the clavicle, and received a severe Contusion of the hip, which prevented him from using it for many weeks; great swelling, pain, and inflammation, which confined him to his bed. His family physician was unable to afford him any relief. Our treatment soon cured him.

Case 164. Mr. Rider, of Fourth-street, fell from a scaffold in a ship yard, fractured the clavicle, and severely bruised his side. One physician attempted to reduce the fracture, and stated that it was properly done. Another was called, who stated that it was not reduced; the consequence was that both were dismissed. We were then called, and commenced treating it, and he speedily recovered.

From the Evening Journal.

Case 165. *Mr. Editor.*—I wish to communicate, through the medium of your columns, the following case, for the benefit of the afflicted:

About two years and a half since, I cut my knee with a broadaxe. The wound was only seven eights of an inch in length, and not very deep. I applied for surgical aid, and was visited by Dr. Peter Renton, of Concord, New-Hampshire. He closed the wound by sewing it up, and then commenced blistering and poulticing. In two weeks time my knee was considered dangerous, and the third week he amputated it from my thigh, leaving a stump six inches long; four days afterwards he sawed off four inches more of the thigh bone. It did not heal, but pained me very much. Six months after, I called on Dr. W. Beach, 95 Eldridge-street, New-York, who gave me medicine which afforded immediate relief, but, living at a great distance from him, I could not obtain any more, and my stump continued to bleed and discharge for two years, during which period I was compelled to lie entirely upon my back, or sit upon a cushion. I consulted, during this period, some of the most able surgeons in the United States, (so considered,) but no one could afford me any relief, or discover the cause of the ulcer. Some said the bone was exfoliating; others decided that my thigh must be amputated again for the third time; but eventually, I called on Dr. W. Beach the second time, in April, 1831, and he again prescribed for me. I followed his directions, and in three weeks my leg healed. His applications removed a piece of the bone which had been the great source of irritation for two years. My opinion is, that if Dr. B. had been my surgeon when I first received my wound, my thigh would not have been amputated. This communication is not published at the request or instigation of any one, but of my own free will, for

the benefit of suffering humanity: and the undersigned hereby solicits other editors to publish the same as testimony in favour of the practice and skill of Dr. W. Beach.

New-York, July 12, 1831. SAMUEL PARKER

Case 165. We were called to see a man, on Long-Island, who had received a wound in the knee, by a scythe, which let out the joint-water. His physician was unable to cure it. The medicine which we applied healed the wound, and he is now well.

Case 167. Mr. Rhinehart, Suffolk-street, a few doors below Stanton, received a Wound from a stone, on the frontal bone, that depressed a large portion of the skull, to the distance of half an inch, which rendered him senseless, produced fits, &c. Contrary to the expectations of every one, we succeeded in curing him; and that, too, without trepanning: which, no doubt, would have been done by any other surgeon in the city.

Case 168. A man, in Cherry-street, fell thirteen feet backwards, and struck his head upon a stone, in the area; the bleeding was profuse; delirium followed. He recovered without trepanning.

ANEURISM.

Case 169. A coloured women, by the name of Grant, in Reed-street, opposite Manhattan water-works, was seized with an enormous swelling in the leg, which was nearly as large as a person's head, attended with pulsation and the most excruciating pain. Dr. Mott decided that she must die, except the operation be performed of tying the artery. Dr. Marshal stated, that nothing would save her life but amputating the thigh. Our opinion was directly the reverse. We believed, that the course proposed would prove fatal: and we adopted means to subdue the inflammation, lessen the irritation, &c, and the consequence was, that all her symptoms subsided, she recovered, and has been well for several years. Dr. M. was so disappointed at her unexpected recovery, that, one year after, he deputized persons to wait upon the woman to know what means were made use of to effect a cure.

FELON.

Case 170. William Harris, Eldridge-street, opposite the United States Infirmary, was taken with so severe a Felon upon the finger, that in a short time he lost fifty pounds weight of flesh. His physician could render him no service. We extracted large pieces of dead flesh, and a large portion of bone; when it healed.

Case 171. Mrs. Morrison, Frankfort, near Chatham-street, had a Felon, which commenced upon the thumb, was exceedingly inflamed, swollen, and painful. Our applications removed the smyptoms; a large portion of bone was extracted, and it soon became well.

Case 172. Miss L., a young lady, was also afflicted with a Felon on the finger, which produced great pain, swelling, &c. After subduing the inflammation, extracting a portion of bone, &c., it healed up.

ST. ANTHONY'S FIRE—(*Erysipelas.*)

Case 173. A young lady in Stanton-street, near Lewis, was attacked with an itching, burning, and swelling of the face, which increased until she became blind. We were called to see her, and prescribed. The medicine, as in similar cases, soon relieved all her symptoms, restored her to sight, and she is now well.

Case 174. Last winter, we were called near Somerville, N. J., to visit Mrs. Davis, who had been afflicted nearly all her life with Erysipelas, or St. Anthony's Fire. Vesicles arose upon the skin, which assumed the appearance of mortification. The remedies made use of arrested the progress of the disease; and she now, as far as we know, enjoys good health.

Case 175. Mrs. L., then residing in Water-street, near Roosevelt, was seized with a very severe attack of St. Anthony's Fire, on the lower extremities; itching, burning, and swelling, were very great, and it finally terminated in gangrene. The applications separated the dead portions of flesh, removed the irritation, and she finally recovered of that disease.

Case 176. Mrs. L., Stanton-street, received a check of perspiration, which caused the St. Anthony's Fire. It caused such a swelling in the face, as made her totally or partially blind for some time; great pain, heat, &c., succeeded by ulceration. Our medicine reduced the inflammation, removed the swelling, and soon cured her.

Case 177. A young woman applied to us with the St. Anthony's Fire in both legs, great pain, heat, itching, inflammation, &c. She had been confined to her room, without being able to walk for many months. A noted surgeon of this city, Dr. C., had attended her a long time, without rendering her any service. Our prescriptions cured her.

Case 178. Mr. R. L., Orchard-street, was taken with Erysipelatious Inflammation of the arm, which became enormously swelled and inflamed. Suppuration followed, and mortification commenced, and destroyed the greater part of the arm. It was attended with excruciating pain, itching, &c. The case was so desperate, that it seemed almost hopeless, but immediately after the application of our medicines, the diseased part assumed a more healthy aspect. The dead flesh separated, the swelling and inflammation subsided, and in six weeks the arm was well.

AGUE IN THE BREAST.

Case 179. The wife of the late Seymour Hawley, formerly keeper of the penitentiary, had her whole breast converted into hard indolent Tumours and ulcers, from the Ague. She had been attended a long time without deriving any benefit. We were called, commenced our treatment, and after about one year she was cured.

Case 180. The wife of Mr. J. C. Faulkner, in Gold-street, a few doors from Spruce, had been reduced extremely low with the Ague in her Breast. It became very much swelled, exceedingly hard, and very much inflamed. Dr. S. formerly attended her for a length of time, and under his treatment she constantly grew worse We were called upon to attend her, and by following our prescriptions, in a few months, she was restored to perfect health.

Case 181. Mrs. L., in Division-street, had been also reduced exceedingly low with the Ague in the Breast. Under the treatment of her physician she was daily becoming worse, until we commenced with her, when she soon recovered.

Case 182. Mrs. R., in Rivington-street, had her breast ulcerated for a long time, proceeding from the Ague. By our treatment she soon recovered.

TUMOURS.

Case 183. Mrs. T. Q. Underhill, then keeping a store in Grand-street Arcade, had a Tumour on the chin or neck, which a surgeon said could not be cured without extraction with the knife. We cured it by the application of medicine alone

Case 184. The wife of A. G. Boggs had been afflicted several years with a large Tumour in the Breast. Our treatment removed it.

Case 185. Miss Tilton, a young lady from Shrewsbury, was afflicted with a large Tumour in one of her breasts. She was told that it could never be cured without a surgical operation. We, however, have succeeded in entirely removing it without the knife, and she has returned home well.

Case 186. Mr. R. had a large Wen on the side of his face, which excited the curiosity of persons in passing the streets. We made use of an application which produced a discharge, and entirely removed it, with little or no pain.

Case 187. A person called at our Infirmary, the other day, (name not taken,) with a Tumour under the chin, which he had for twenty years. He applied to a surgeon, who stated, that it must be extracted with the knife. Our treatment entirely removed it in about two weeks.

WHITE SWELLING.

Case 188. The foreman of Mr. Munson, combmaker, then residing at the corner of Pearl and Beekman-streets, was taken with a Swelling and Inflammation of the knee, which rendered him a cripple, and entirely confined him to his room; being unable to make the least use of his leg. It suppurated, and the whole knee seemed almost a mass of corruption. The physician who attended him could render him no service. We were called to attend him, and succeeded in curing his disease. He now works, we believe, with Mr. Curtis, combmaker, in the Bowery, opposite Spring-street.

Case 189. The daughter of Mrs. Williamson, then residing in Mulberry-street, near Bayard, was afflicted with the White Swelling, or Hip Disease, which rendered her a cripple. The physician, or physicians, who attended her abandoned the case as hopeless; after which we were called to attend it: and after one year or more effected a cure. She is now a well woman, walks the streets without crutches, and enjoys excellent health

Case 190. A little girl, aged about ten, then residing No. 20 Orchard-street, was taken with the Hip Disease, or White Swelling, which suppurated and discharged in two places. All previous treatment availed nothing. Our treatment healed up the ulcers and effected a cure, although she will ever walk lame, as the hip was drawn out of joint before we saw it; had we been called in the commencement, this probably would not have happened.

Case 191. The son of Mr. Trembly, then residing No. 80 Vandam-street, was taken with the most excruciating pain of the White Swelling, or Hip Disease. The physicians who were first called to it were of no service. Our applications soon removed the pain, swelling, &c., and although ulceration took place, the boy can now walk without crutches, and is well.

Case 193. A child, about six years of age, was attacked with a White Swelling, which caused the most intolerable pain. The knee and hip were excessively swollen, and the child confined to his bed; and he was rapidly wasting away. The physician who attended him was unable to afford the least relief. He was placed under the care of one of our students, who soon succeeded in mitigating the pain, reducing the swelling, and thus preventing suppuration. His health was so impaired, that he was unable to sleep for nights in succession. The course pursued removed the complaint. He was subsequently attacked in the other leg, in the same manner, and the same course of treatment removed it.

Case 194. Joseph Denton, the person before mentioned, was seized with a severe pain in the knee, followed by great Swelling and Inflammation, which prevented him from labour for a great length of time. The disease assumed such a character, that it was feared that it would be necessary to resort to amputation. The usual remedies were applied; the symptons abated, and in the course of two months he recovered.

Case 195. The son of Mr. Williamson, of Williamsburgh, Long Island, was attacked with a tumour between the hip and the knee, which was cut out by a surgeon of this city. Ulcerations followed, which appeared to extend to the joint. A large opening or orifice formed, about twelve inches long, which penetrated deep into the flesh, and from it was a copious discharge of pus and matter. The joint appeared diseased, which rendered him a cripple for many months. Under the treatment of a number of physicians he constantly grew worse. In this condition we were called to attend him, and he began rapidly to recover: he threw aside his crutches, can now walk, and is perfectly well.

Case 196. The child of Mrs. Williamson, 200 North-street, was taken with a pain, inflammation, and swelling of the hip. Ulceration finally succeeded, which proved to be the White Swelling, or Hip Disease. There was an orifice, or opening, which extended to the bone. She was unable to find relief from any source, until she submitted to our treatment, which cured her. She was a long time a cripple, but now walks, and has been well for a dozen years.

Case 197. The child of Mr. Ross was taken with an inflammation in the leg, which terminated in suppuration, and extensively diseased the whole knee, covering it with ulcers, hardness, swelling, &c. Under the treatment of a noted surgeon of this city, it constantly grew worse. Under our treatment it healed up.

SALT RHEUM, TETTER, HERPES, &c.

Case 198. S. A., the daughter of Mr. Latourette, Gold-street, was afflicted for a length of time with the Salt Rheum, itching, burning, and scaly eruptions of the hands The means we used to cure the disease proved effectual.

Case 199. The daughter of Mrs. C. had also been afflicted with Salt Rheum on her hands for a length of time. We gave her such medicine as entirely removed the complaint.

Case 200. The daughter of Mr. Smith, of Smith-town, L. I., was so severely afflicted with this disease, that her whole body was covered with scaly eruptions; she had tried many physicians and many prescriptions without any benefit. She came to this city, and placed herself under our care; although it required one year, we cured the disease, and she is now entirely free from every vestige of the complaint.

Case 201. A woman, in Forsyth-street, near Broome, was so severely afflicted with Salt Rheum, that her hands and body were nearly covered with it, and had it for many years; she tried fifty or a hundred remedies, but nothing afforded relief, until she used our medicines, which mitigated her symptoms in a short time, and, as far as we know, she is now well.

Case 202. Mr. Stephen G. was severely afflicted with an eruption, itching, burning, &c., of the feet. Nothing afforded him any relief until he used our medicines, which soon cured him.

Case 203. Mrs. Lober, in Pearl-street, near Frankfort, was so severely afflicted with Salt Rheum, that her whole body was almost in running ulcers, attended with the most painful sensations. She was cured in about two weeks.

Case 204. Mr. Samuel Walker, then residing 507 Washington-street, had been afflicted for six

months with Salt Rheum, and an Herpetic ulcer on the face. The parts became very much enlarged, very irritable and inflamed, so much so, that he had not shaved himself for four months. It was attended with itching, burning, and the most unpleasant symptoms. A noted physician, Dr. H., of Boston, had attended him, without affording him any benefit. In this situation he was placed under our care, and in twelve days he was cured. I saw him the other day, and he informed me that he had no return of the complaint since, it having been more than a year.

RUPTURE (*Hernia.*)

Case 205. Mr. F. corner of Eldridge and Broome, had his life endangered by an Irreducible or Incarcerated Rupture. We were enabled to return the contents of the hernial sac without an operation, which is almost invariably resorted to by surgeons of the present day, and which often destroys the patient in a short time.

Case 206. Mr. L. in Forsyth-street, was reduced to the same dangerous state, and the same means cured him.

Case 207. Another person, name not recollected, had been afflicted for many years with a Hernial Rupture. By great exertion it had become irreducible, and placed his life in the greatest jeopardy. The same means soon returned the contents of the hernial sac.

HYDRO-SARCOCELE.

Case 208. Mr. Heyde, living in Centre-street, near the gas-house, had been afflicted for years with an enormous dropsical and callous swelling. He applied to Dr. Mott, who intimated that the whole of his disease must be laid open, and the most formidable operation be submitted to. He applied to other physicians, who considered the case so desperate that they were afraid to treat it. Another surgeon decided that the operation of castration must be performed to effect a cure. He applied at our Institution, and submitted to our treatment. We first drew off thirty-six ounces of fluid; afterwards took measures to reduce the swelling, and he is now perfectly well, and attends to his ordinary business, being a cooper by trade.

Case 209. Mr. L., a painter by trade, then residing in Elizabeth-street, between Spring and Broome, was afflicted for a length of time with the same disease; the parts were exceedingly hard, and had ulcerated in several places. A physician attended him for two or three months without any benefit, and then decided that he must be castrated. In this hopeless condition, he applied at our Infirmary, and is now a sound man.

Case 210. A person, name not recollected, in a similar condition, made application at our Infirmary was treated in a similar manner, and cured.

CANCER.

Case 211. Mr. M'Bride, cartman, had a Cancer upon his breast for many years; could find no remedy. Applications were applied to it which extracted it in a few weeks, and he has been well for many years.

Case 212. Mrs. R. P., residing in Bayard-street, near the Bowery, had a Cancer on the temple. The same treatment removed it, and she has also been well for years.

Case 213. John Tucker, of Brookhaven, Long Island, had a disease upon his tongue, which increased until a hole was eaten nearly through it, producing a large ulcer, and rapidly extending. He applied to Dr. Mott of this city, Dr. Stevens, and in all thirteen physicians, who all decided that it was a Cancer, and must be extirpated with the knife, or the tongue cut off. Under these discouraging circumstances, he applied at our Infirmary, and so hopeless was the case, that we had little prospect of his recovery; but our applications had a much more favourable effect than we anticipated, and after a few weeks removed every vestige of the disease.

Case 214. Captain Conklin, corner of Pearl-street and Front, lumber-merchant, Brooklyn, had an ulcer upon the face, which was pronounced a Cancer by a physician of this city. Our applications removed it, and he has now been well for several years.

Case 215. The daughter of Mr. Van Nostrand, Brooklyn, Long Island, was taken with an Ulcer upon the nose, which continued to corrode the parts, and destroyed a considerable portion of one nostril. It had progressed until it appeared to be incurable; a number of physicians unable to afford any relief. Our treatment eradicated it.

Case 216. Mrs. Holdridge had a Schirrous Tumor, which was pronounced a Cancer, and which her physician was unable to cure. She applied to us, and the disease was removed. She was afterwards afflicted with inflammation of the lungs, pleura, cramp, &c., and other complaints, which were all cured.

Case 217. Mr. Adams, of this city, had a Cancerous Ulcer upon the lip, which continued to corrode and destroy the flesh for a length of time. Applications were applied which cured him.

From the New-York Evening Post.

Case 218. Mr. Coleman—As you have ever manifested a disposition to publish any fact that might be useful to the afflicted, I take the liberty of requesting you, through the medium of your paper, to make known the following case. About one year ago, I discovered a tumor in my left breast, which gradually increased till it ulcerated. The pain attending it was darting and lancinating, producing sensations similar to needles, or some sharp pointed instruments piercing the flesh. Feeling alarmed at these symptoms, I applied to Dr. Richard Kissam, who pronounced it a Cancer, and advised me to submit to an operation. In consequence, however, of hearing, a few days afterwards, that Dr. Beach had been successful in curing this disease without the knife, I relinquished the idea of such an operation, and placed myself under his care. His first application mitigated the pain, and in the space of two months I had the satisfaction of finding myself perfectly well. The gratitude I feel on the occasion, prompts me to make the circumstance thus publicly known, not only in justice to the physician, who was the instrument, in the hands of Providence, of rescuing me from the jaws of death; but also for the benefit of all those who are labouring under this most distressing malady. In contrasting my case with that of a lady from the country, who, a few weeks since, died under an operation for a similar disease, performed by two surgeons of this city, I feel emotions of gratitude more easily felt than described—and therefore, out of sympathy for all who are afflicted with Cancers, I do most earnestly recommend Dr. Beach's mode of treatment, and request, that in the cause of humanity, other editors will have the goodness to give the above statement a few insertions. ELIZABETH MICHAELS.

New-York, March 11, 1822.

NECROSIS.

Case 219. George Hewlet applied at the Infirmary, afflicted with an ulcer below the hip joint. It extended to the bone, which also became affected. It commenced with ordinary inflammation, being attended with very excruciating pains for a length of time; it finally suppurated, and continued to discharge a large quantity of matter for the space of three years. The physicians to whom he applied could afford him no relief. The course pursued at our Infirmary separated the diseased bone, and he has now been well about two years.

Case 220. Mr. Henry Lewis, from Columbia county, state of New-York, was attacked with an inflammation of the leg, which, after continuing for some length of time, suppurated, and discharged large quantities of sanious matter or pus. There were numerous sinuses or openings in the leg, extending to the bone, causing decay. Most of the tibia, or front-bone, was rotten. We applied medicines to open the sinuses, and to make one common communication, one with the other; after which the applications were used to separate the diseased portion of the bone, when, after about six months from the time we commenced, it healed up. A number of pieces of bone were extracted. A surgeon of this city, Dr. Mott, proposed an operation by the knife.

Case 221. Mr Douglass had been afflicted with a diseased leg, in which the bone had become carious, or diseased, for eighteen months. He could find no benefit from any other source, until he applied at our infirmary; when, by submitting to the treatment prescribed, he was entirely cured.

Case 222. Mrs. Paul, Forsyth-street, had been afflicted for many years with a Fever Sore, with a constant discharge, great swelling, inflammation, &c., the humours from the ulcer often receding, and settling upon some inward organ, and causing great distress. A great number of physicians were applied to in vain, after which we were called to attend her. Our prescriptions were attended with a happy effect, swelling and inflammation subsided; the discharge ceasing, and the ulcer (very extensive) nearly healed.

FISTULA IN ANO.

Case 223. Mr. Washington Lewis, Chatham-square, had been afflicted with a Fistula for a great length of time. It commenced with great pain, inflammation and swelling, and finally suppurated, and continued to discharge matter freely for more than a year. It extended up the bowel, or rectum, about two inches; hard, callous edges, &c. A surgeon of this city attempted to extirpate it with the knife, by making extensive incisions. After submitting to the treatment usually pursued in this complaint, it healed up, and he was restored to health.

Case 224. Mr. Tomes, Wood Inspector, residing in Crosby-street, was attacked with a Fistula, great pain, inflammation, &c., and all the symptoms of that formidable disease. He was attended by two physicians, who were unable to cure him. After this we were called; our treatment effected a cure without any surgical operation by the knife.

For twenty-two other cases of this complaint, see FISTULA, pages 536, 537.

INFLAMMATION OF THE BLADDER, SUPPRESSION OF URINE, &c.

Case 225. The wife of Mr. Rayner, 62 Avenue D, was taken with an Inflammation of the Bladder, which produced a total suppression of urine. Her agony was so great that her cries could be heard in an adjoining apartment. In twenty minutes our treatment afforded relief, returned the water, and in a short time cured her.

Case 226. Mr. Tice, Avenue D, was seized with an Inflammation of the Bladder, which produced great pain, and total suppression of urine. Our prescriptions soon relieved him.

MEASLES.

Case 227. A child of Mr. Dick, Grand-street, was given up as hopeless with the measles. Our treatment effected a cure.

SPASMS OR CRAMPS.

Case 228. We were called to see a woman affected with cramp, and gastric spasms, vomiting, pain, contraction of the tendons, &c. The physician who was called could not relieve her. He was unable to prescribe any thing to allay the vomiting, irritation, &c. The first dose we gave her mitigated all the symptoms, and in a few days she was well.

CURVATURE OF THE SPINE, TUMOUR, &c.

Case 229. A child of Mr. R., Greenwich Village, was attacked with a Disease of the Spine. A hard tumour formed by the side of it, which prevented the child from rising or walking. Our treatment cured it.

RICKETS.

Case 230. The child of Mr. Washington Lewis, Auctioneer, Chatham-square, was attacked with a scrofulous affection, which terminated in the Rickets. He was unable to walk, and very feeble; his joints were enlarged, and the disease seemed almost incurable from its obstinate character. Internal and external means were used to produce a healthy state of the system, by which the child was restored to health, and has for a length of time continued well.

GENERAL DEBILITY.

Case 231. Mrs. Lee, Greenwich-street, had been declining in health for a great length of time, flesh wasted, strength gone, restlessness, fever, digestion impaired, with general debility of the whole system. She could find no relief from theordinary prescriptions. A vegetable course of treatment restored her to health in a few weeks.

THE END.

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TO ALL THE FRIENDS OF THE REFORMED PRACTICE.

Having been very often applied to, from various parts of the country, for medicines made of ingredients of MY OWN SELECTION, and put up under MY OWN SUPERVISION, adapted to the cure of the several diseases described in my "American Practice," and "Family Physician"—and having been repeatedly informed by friends abroad, that articles purporting to have been made according to directions in my Books, and bearing my name, but made up of spurious or inefficient materials, were vended by Druggists and Pedlars, and that in consequence of this the character of the Reformed Treatment has been placed in jeopardy, and the value of its prescriptions rendered doubtful—I therefore feel myself impelled in justice to the cause to which I have devoted my life, to take the most effective and direct course which is in my power to defend from undeserved reproach, and from all liability thereto, the just reputation of the medicines, which I know by personal experience and observation in thousands of cases in my own practice of near thirty years to be the most safe, sure, salutary, and effective remedies which can be employed in the various forms of disease—and in order to this, viz., to protect these remedies from being deteriorated, and from consequent depreciation, and also to meet the wishes of many friends, I have concluded to have all my medicines put up under my own immediate superintendance in forms suitable for transmission to all parts of the United States, Canada, the West Indies, and for vessels going to all parts of the world—with printed directions accompanying each article. All the various kinds, such as I use in my personal Practice, I shall put up in Packages, Boxes, Vials, or Bottles, according to the nature of the materials of which they are composed, in small or large parcels, so as to come within the means and wants of all classes—and a complete assortment in medicine chests for individuals, families, or ship-masters who may order them. And to assure the Public of their *genuineness*, and to guard against *imposition*, I shall have my likeness impressed upon the label of each article, with my WRITTEN signature inscribed on each label.

These medicines adapted to all ages, constitutions, climates, and seasons, and suited to every variety and stage of disease—I shall warrant all who may be disposed to purchase them, shall be prepared of the very BEST INGREDIENTS which this and foreign countries can produce. As I shall purchase the raw materials in large quantities either in this city, (New York, where the very best facilties are afforded for procuring the purest and best articles of the kind,) or import them from abroad, at wholesale prices, I shall therefore be enabled to sell all the prepared medicines much cheaper than the same materials can be procured by individuals any where, or by Druggists generally. This I shall do, not to take advantage of the afflictions or credulity of my suffering fellow-beings to amass wealth, but to preserve and maintain the high character of the Reformed system of medicine and practice, and to ensure the public against imposition and consequent damage therefrom by the sale and use of spurious and worthless articles, made for speculation by men who have no interest in that humane and merciful cause to which my life, money, reputation, and resources of all kinds have been unreservedly consecrated for many long and tedious years—in the midst of toil and discouragements which can scarcely be imagined

As I know by innumerable facts, by extensive and repeated experience, and by ong observation, the *appalling*, the *awful mischiefs* perpetuated by MINERAL POISONS, and the infinitely superior efficacy, and invariable safety of the VEGETABLE or BOTANICAL REMEDIES, in the most perilous and difficult cases—I therefore owe it to the cause of Medical Reform, to the friends and Physicians engaged in it, to the physical well-being of my fellow-men, to my own good name, and to posterity, to guard all parties against injury by any just means in my power While the adoption of this course on my part will not preclude individuals from preparing medicines for their own or family use, according to directions in my medical work—yet I wish it to be distinctly understood, and the public to be fully aware, that I will not be responsible for the action of any medicine SOLD *as mine or bearing my name*, except that which has my own LIKENESS and WRITTEN signature on every label, covering each box vial, package, &c. And I hereby CAUTION the public against purchasing any

medical preparation called "BEACH'S MEDICINES," except such as are put up in the manner above described—and I also warn all persons who shall use my labels and signature, that they will render themselves liable to costs of prosecution, and such damage as the courts of our country shall award me in such cases made and provided for by laws designed to protect proprietors from injury by forgers, counterfeiters, and such as vend their surreptitious inventions.

The medicines which I shall prepare, and hold in readiness to meet all orders, are such as I have used and continue to use with great success in my own personal practice—their names and uses are as follows:—

1. ANTI-BILIOUS FAMILY PHYSIC.

This is a COMPLETE SUBSTITUTE FOR MERCURY OR CALOMEL in every shape, and far superior to Jalap, Salts, Castor Oil, Aloes, Gamboge, &c. It is intended for all cases of excess or deficiency of bile—for dyspepsia, indigestion, costiveness, febrile diseases, headache—and in every case where a thorough purgative is required, it is excelled by no other medicine.

2. ALTERATIVE POWDER.

For Rheumatism, Scrofula, Salt Rheum, Impurities of the blood, Mercurial, Syphilitic, and Eruptive diseases, for cutaneous affections, or diseases of the skin, for Ulcers, Gout—also for White Swelling, Erysipelas, Necrosis, Rickets, and in every taint of the system, or corruption of the blood, from whatever cause it may arise.

3. NEUTRALIZING MIXTURE.

For Diarrhœa, Dysentery, Cholera Morbus, Summer Complaints of children, and for all acute or chronic diseases of the bowels.

4. FEVER OR DIAPHORETIC POWDERS.

These are Anodyne, Sudorific, and Anti-Febrile—producing gentle perspiration, allaying pain, giving rest, and checking fevers and inflamations.

5. PILE ELECTUARY,

For Hemorrhoids or Piles. It is perfectly pleasant to take, mild and easy in its operation, and affords immediate relief. We have not heard of a single case in which this medicine has failed either to produce speedy relief, or to cure the complaint.

6. VEGETABLE EMETIC.

A better article of the kind is not known. It is one of the most easy and effective in its operation—and is particularly recommended in every derangement of the Digestive Organs, in Dyspepsia, in Affections of the Liver, in Bilious and Febrile complaints, Sick and Nervous Headache, Loss of Appetite, Pulmonary Diseases, Croup or Hives, Whooping Cough, Apoplexy, Hysteria, Fits, &c.

7. RESTORATIVE WINE BITTERS.

[*The Powders.*]

These will be found exceedingly valuable in all cases of Debility, Pain in the Breast, Incipient Consumption, and those inward complaints peculiar to Females—such as Fluor Albus or White Flows, Prolapsis Uteri or Falling of the Womb, Excessive Menses, &c. By giving tone to the Digestive organs they are peculiarly useful in Dyspepsia or Indigestion, and are thus beneficial in removing Costiveness, Sour Stomach, Flatulency, &c.

8 PULMONARY POWDER.

For Colds, Coughs, Consumption, Spitting of Blood, Pain in the Breast, &c. This medicine has been extensively used in the PRIVATE PRACTICE of the original Proprietor for many years, and its virtues have been fully tested in various diseases of the Lungs and Chest. It promotes expectoration, allays the Cough, gives tone and strength to the system, and has REPEATEDLY PROVED EFFICACIOUS WHEN ALL OTHER MEANS HAVE FAILED.

9. WORM POWDER.

This powder is designed to remove worms from the Stomach and Bowels, while at the same time it cleanses and strengthens those organs, and has been the most successful in removing worms from children and adults of any other vermifuge that I have known.

10. FEVER AND AGUE POWDERS.

This preparation possesses strong tonic properties, and will be found a sovereign remedy for the Fever and Ague or Intermittent Fever in all its stages, without the least injury to the constitution, but instead of this it gives vigor and tone to all the impaired functions.

11. ANTI-BILIOUS FAMILY PILLS.

These Pills are the product or extract of the roots of Medicinal Plants, and are possessed of stimulating, detergent, or cleansing properties, and are a PERFECT SUBSTITUTE FOR MERCURY, and other Drastic Purgatives; operating without nausea, or sickness of the stomach, or griping. They promote the healthy secretions of the Stomach, Liver, and Intestines, removing Billious and Morbid accumulations of matter —hence, they are efficacious in cases of Dyspepsia, or Indigestion, Disease of the Bowels, Costiveness, Pain in the Stomach and Side—Fever or determination of Blood to the Head. They also act on the Urinary Organs, thus curing Dropsy, and affections of the Kidneys, also Gravel, Suppression of Urine, &c. They are invaluable in Southern climates, and to all persons disposed to bilious attacks.

12. RHEUMATIC PILLS.

These Pills are very efficacious in every case of Rheumatism. They attenuate viscid humors, remove obstructions, and thus cure the complaint. The Rheumatic Liquid used in connection with these Pills, to bathe the parts affected, will do much to hasten a cure.

13. HEPATIC OR LIVER PILLS.

These remove obstructions of the Liver, and act *specifically upon this organ*, changing its secretions. They are excellent in all affections of the Liver, generally removing the pain in the side and shoulder in a short time; they act gently upon the Bowels, accomplishing vastly more than is represented to be effected by MERCURY These Pills have the very highest reputation with those who have used them.

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These operate mildly on the stomach and bowels, cleansing, and imparting to them tone and energy, without producing debility—hence they are useful in loss of Appetite, Weakness of the Stomach, habitual Costiveness, Indigestion, Sour Stomach, Heartburn, Dizziness, and all those complaints peculiar to Females.

15. FEMALE PILLS.

These Pills are an effectual remedy in difficult, painful, and obstructed menses—and are of great value in all cases of Chlorosis or Green Sickness.

16. COUGH PILLS.

For Colds, Coughs, Bronchitis, Tickling in the Throat, Pain and Tightness in the Chest, and difficulty of Breathing. A very valuable remedy, and one which has been very successful.

17. NERVOUS PILLS.

[illegible] se Pills relieve pain, produce quiet

[illegible] OWDERS.

[illegible] Catarrh, and other obstructions in

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This is unequalled in all kinds of Inflammation, sore and inflamed Breasts. Inflammation of the Eyes, Burns, Ulcers, Erysipelas or St. Anthony's Fire, Piles. White Swellings, King's Evil, and cuts or wounds.

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This Salve seldom or never fails to benefit or cure Ulcers, Cuts, Sore Nipples, Burns, and Sores of all kinds. It will be found excellent in every case where a healing salve is needed.

21. IRRITATING PLASTER.

This is one of the most valuable of Counter-irritants. By being applied over the parts, it relieves acute and chronic pains in the Side and Chest, and Inflammation of the Throat or Bronchitis. It cures Deafness, or Dullness of Hearing, and is one of the very best remedies for all DISEASES OF THE SPINE, and of the head or brain.

22. EXPECTORANT AND ANTI-SPASMODIC DROPS.

These Drops are Stimulant and Expectorant, and have an immediate effect in relieving Whooping Cough, Croup or Hives, Asthma, Inflammation of the Lungs, and in all cases where there is difficulty of Expectoration or Breathing—also in Epilepsy, and common Fits.

23. RHEUMATIC LIQUID.

This compound is admirably calculated to cure Rheumatism, Sprains, Contraction of the Tendons, White Swellings, Ague in the Breast and Face, Spinal Irritation and Weakness, Quinsy Sore Throat, and all painful and neuralgic affections, situated in any part of the body.

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For a disordered state of the Stomach and Bowels. This has cured or relieved chronic cases of Dyspepsia of twenty years standing. Excellent for Diarrhœa.

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For the Gravel, and all affections of the Kidneys, or difficulty in voiding Urine, attended with heat and scalding. It will also be found invaluable in Fluor Albus or White Flows, Gonorrhœa, &c.

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This Ointment is designed to remove the Itch, Salt Rheum or Tetter, Scald Head, St. Anthony's Fire, and all diseases of the skin. This is invaluable in cases of SORE OR INFLAMED EYES.

27. COUGH DROPS.

These Drops are excellent to allay Colds, Coughs, Hoarseness, and other Bronchial affections.

28. SUDORIFIC TINCTURE.

For violent Colds, Fevers, Inflammations, Cramps, Painters' and Bilious Colic. This soon produces a free and easy perspiration, and allays all violent pains.

29. WINE BITTERS IN BOTTLES.

They are made of the powders contained in the packages, of the best imported Malaga Wine—put up in bottles holding over a quart.

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W. BEACH, M. D.

HAVING been made acquainted with the ingredients which compose McALISTER'S ALL-HEALING OINTMENT, and having prescribed and tested it in several cases in my private practice, I have no hesitation in saying of its efficacy, that it is a vegetable remedy, containing *no mineral substances*, [illegible] gredients, combined as they are, and used as directed by the proprie[tor] great value, being a truly scientific remedy of great power, and [illegible] pound which has done much good, and which is adapted to cure a [illegible] have never either recommended, or engaged in the sale of secret m[edicines] conscientious and humane character of the Proprietor of this Oint[ment] obliges me to say this much respecting it.

New York, April 26, 1846.

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